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DRAFT ENVIRONMENTAL IMPACT REPORT

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

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DRAFT EIR PUBLICATION DATE: DECEMBER 14, 2002

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DRAFT EIR PUBLIC COMMENT PERIOD:
DECEMBER 14, 2002 TO JANUARY 28, 2003

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Written comments should be sent to:

Paul Maltzer, Environmental Review Officer • San Francisco Planning Department
1660 Mission Street, Suite 500, San Francisco, CA 94103

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DATE: December 14, 2002

TO: Distribution List for the Golden Gate Park Concourse Authority Projects Draft EIR

FROM: Paul Maltzer, Environmental Review Officer

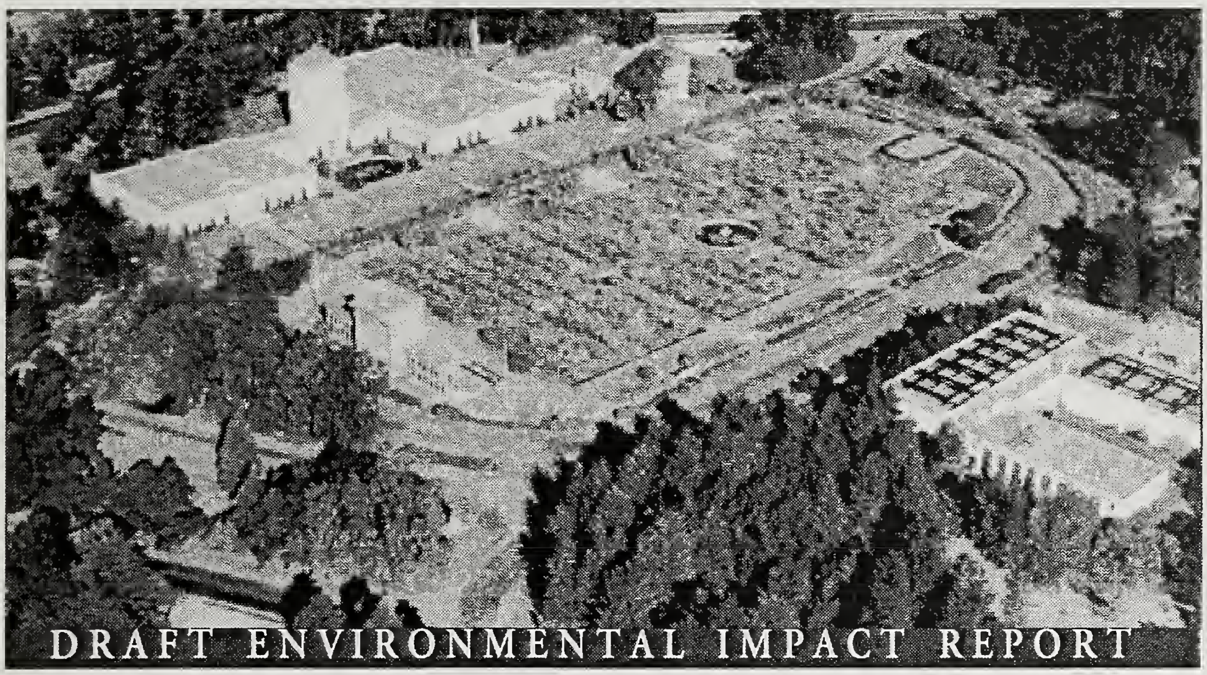
SUBJECT: Request for the Final Environmental Impact Report for the Golden Gate Park Concourse Authority Projects (Case No. 2001.911E)

This is the Draft of the Environmental Impact Report (EIR) for the Golden Gate Park Concourse Authority Projects. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, we will prepare and publish a document titled "Summary of Comments and Responses" that will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting(s) and certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one, rather than two, documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them. If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the San Francisco Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.



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Golden Gate Park Concourse Authority Projects Draft Environmental Impact Report

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I. SUMMARY

A. PROJECT DESCRIPTION

In 1998, voters of San Francisco approved Proposition J, the Golden Gate Park Revitalization Act, to improve the landscape and pedestrian environment of the Music Concourse area and to construct an Underground Parking Facility within near the Concourse area with dedicated access routes from outside Golden Gate Park. The proposed project would include an Underground Parking Facility at the Music Concourse, surface improvements, and transportation improvements in the Concourse area and throughout Golden Gate Park, as described in Proposition J. Proposition J requires the removal of surface parking spaces from the Concourse area and in locations throughout the Park, equivalent to the number of spaces provided in the new Underground Parking Facility, upon completion of the Facility.

The Golden Gate Park Music Concourse Projects encompass the development and implementation of improvements designated in Proposition J. Proposition J authorized and directed the creation of the Golden Gate Park Concourse Authority (GGPCA), a non-profit public benefit corporation, to enact the ordinance to "(1) create a pedestrian oasis in the Music Concourse area of Golden Gate Park, situated between the deYoung Museum and the Academy of Science (the 'Concourse') and (2) take steps to reduce the impacts of automobiles in the Park while still providing long-term assurance of safe, reliable and convenient access for visitors to the Park, including its cultural institutions."

To accomplish its objective and complete its mission, the Authority is authorized and empowered by Proposition J to complete three major elements:

1. Design, construct, and operate an Underground Parking Facility of not less than 800 spaces nor more than 1000 spaces located within or near the Music Concourse, with a dedicated entrance and exit situated outside the Park;
2. Design and implement improvements of the Concourse to enhance its natural and scenic landscape; and
3. Design and implement traffic, transit, and infrastructure plans, programs, policies, goals, and improvements relating to the Music Concourse area and the remainder of the Park necessary or appropriate to facilitate a park that is accessible to all of the public.

Golden Gate Park is about three-and-a-half miles long and one-half mile wide and is bounded on the west by The Great Highway along Ocean Beach; on the north by Fulton Street and the Richmond District; on the east by Stanyan Street and the Haight-Ashbury District; and on the south by Lincoln Way and the Sunset District. The Park is a nationally renowned recreational area that includes gardens, fields and meadows, forests, ponds and lakes, monuments and buildings, recreational facilities, nearly fifteen miles of vehicular roadways, several parking lots, and many paths and paved areas. The Golden Gate Park Concourse Authority Projects would include transportation improvements throughout Golden Gate Park.

In February 2002, the Golden Gate Park Concourse Authority board approved proceeding with a Schematic Plan that included a separate underground parking area (Transit Center) for tour buses and school buses that currently park behind the Spreckels Temple of Music and along Academy and Tea Garden Drives. The proposed bus parking area was located beneath the area to the east of the Concourse, accessible from either Tenth Avenue or Middle Drive East and would accommodate approximately 18 buses. The February 2002 Schematic Plan also included an Underground Through Street between Tenth Avenue and Middle Drive East. The Tenth Avenue ramp at Fulton Street and the Middle Drive East ramps would serve the Underground Parking Facility, the bus parking area, and the through traffic.

In August 2002, this Schematic Plan was revised to comprise the project description analyzed in this EIR: The bus parking area was dropped from further consideration because of the limited number of buses that could be accommodated, and circulation constraints among buses, access to the vehicle parking, and through traffic in the Underground Through Street. The February 2002 plan was also re-considered to separate parking access at Tenth Avenue and Fulton Street from potential Phase II Underground Through Street traffic, now proposed to be from John F Kennedy Drive (Kennedy Drive) at Eighth Avenue. GGPCA planning efforts and public outreach have continued; the alternatives analyzed in this EIR reflect a range of Concourse surface access and circulation options identified in this planning process.

As described below, the GGPCA Projects include several phases or elements. Phase I would be the Underground Parking Facility and associated Concourse surface improvements; Phase II would be an Underground Through Street between Kennedy Drive near Eighth Avenue to

Middle Drive East; Phase II is currently an unfunded public enhancement to the GGPCA Projects. The project also includes implementation of transportation improvements called for in Section 8 of Proposition J. The EIR analyzes potential impacts of the GGPCA Projects for each of those phases or elements, as appropriate.

Phase I would include construction of a privately funded Underground Parking Facility that would accommodate about 800 cars, configured in two, two-level structures: one beneath Tea Garden Drive between the New deYoung Museum and the Music Concourse and the second beneath Academy Drive between the California Academy of Sciences and the Music Concourse. The two structures would be connected by an underground vehicle tunnel at the east end of the Music Concourse Bowl. A ramp at Tenth Avenue and Fulton Street, beginning outside the Park, would provide the primary entrance and exit for the Underground Parking Facility. A second entrance and exit would be constructed to ramp down from Academy Drive west of the Academy of Sciences. The total footprint of the parking facility would be approximately 166,000 square feet (sq. ft.).

Phase I would also include the reconstruction and restoration of the two easterly pedestrian tunnels and portals in their current location, to meet structural codes. Circulation through each pedestrian tunnel would remain independent. The existing southwest pedestrian tunnel beneath Academy Drive would be reconstructed with restored portals, with pedestrian circulation through the upper level of the parking facility. This reconstructed tunnel would include doorways in the tunnels to shield views and noise from the garage. A grade change between this tunnel entrance and the parking facility would include steps and ramps.

The GGPCA is also considering a variant to maintaining the southwest tunnel as a pedestrian route through the Underground Parking Facility. The variant would replace the pedestrian tunnel with a new walkway at the surface above the parking facility. The north tunnel portal at the Concourse Bowl would be replaced in its current location, after construction of the parking facility. The portal would remain an architectural feature in the Concourse Bowl, but there would no longer be a pedestrian opening. The south portal would be removed and the existing depressed walkway that currently slopes down into the tunnel would be filled.

Phase II would entail construction of an Underground Through Street connecting Fulton Street to Middle Drive East, which would allow for through traffic to be restricted or eliminated from Tea Garden Drive and Academy Drive. Phase II is currently an un-funded public enhancement to the project. The proposed underground roadway would ramp down at Eighth Avenue at Kennedy Drive and would extend beneath the east end of the Concourse and alongside the east side of the California Academy of Sciences, where it would ramp up to Middle Drive East. This underground street would not provide access into the parking garage and would be intended to reduce cross-park vehicular traffic through the Music Concourse.

Other Proposition J projects include an Intra-Park Shuttle, a Cultural Shuttle, traffic calming, parking management, bicycle and pedestrian improvements, road closures, and MUNI service improvements. Some of these proposals were included as part of the *Golden Gate Park Master Plan* and analyzed in the certified Master Plan EIR.

The proposed project would be constructed in phases to coincide with other construction planned in the Music Concourse Area for the New deYoung Museum and Academy of Sciences. Phase I would be constructed in one 22-month phase. Phase II would be constructed as a separate phase. *Golden Gate Park Master Plan* projects would be phased over a seven- to ten-year period and projects would be coordinated by zone to minimize potential cumulative impacts in the Park.

Golden Gate Park is located within a P (Public Use) zoning district, and within an OS (Open Space) Height and Bulk district. Permitted uses in a P zoning district include public structures of the City and other governmental agencies when in conformity with the San Francisco General Plan, and approvals for various aspects of the project may be required from the Board of Supervisors, the Planning Commission, the Recreation and Park Commission and the Zoning Administrator. There are no specific height and bulk limits in the OS Height and Bulk District. Height and bulk of buildings and structures are determined in accordance with the objectives and policies of the San Francisco General Plan.

Proposition J confers administrative jurisdiction over the Underground Parking Facility on the Golden Gate Park Concourse Authority (GGPCA), subject to the power of the Recreation and Park Commission by a vote of two-thirds of its members to reject certain actions taken by the

GGPCA. Proposition J makes the GGPCA responsible for the design, construction and operation of the parking facility and authorizes the GGPCA to enter into one or more contracts and leases in order to carry out these duties. Section 9.118 of the City Charter requires the Board of Supervisors to approve certain contracts and leases by resolution. The Charter also requires the Board to approve the parking fee schedule for the parking facility by ordinance. Proposition J requires that the Underground Parking Facility be constructed entirely with private funds. Initially, the GGPCA proposes to enter into a memorandum of understanding (MOU) with the Music Concourse Community Partnership (MCCP), a California non-profit public benefit corporation, pursuant to which MCCP will manage the design, construction and operation phases of the Underground Parking Facility, subject to GGPCA approval and oversight.

B. MAIN ENVIRONMENTAL EFFECTS

The Initial Study, published on May 18, 2002, found that the project would not cause potential significant environmental effects in the following areas: land use, light and glare, population, utilities and public services, biology, geology and topography, water, hazards, energy and natural resources, and archaeological resources, and therefore required no further analysis of these potential effects in the EIR (see Appendix A, p. A.1, Initial Study). Land use is included in the EIR for informational purposes. Other topics analyzed in this EIR include visual quality, historic resources, transportation, noise, and air quality.

LAND USE, PLANS, AND ZONING (P. 29)

As stated above, the Initial Study, published on May 18, 2002, found that the land use changes would not cause potential significant environmental effects, but a discussion is included in the EIR for informational purposes only. The proposed Underground Parking Facility, Concourse surface improvements, traffic and transportation improvements throughout the Park, and other Proposition J projects would be consistent with the current uses and the land use zones around the Park. The proposed project would be a continuation of existing Park activities and would be consistent with the P (Public Use) Zoning District. The Park is within an OS (Open Space) Height and Bulk district where there are no specific height and bulk limits, and almost all of the development on the project site within the Park would be underground.

The proposed Phase I Underground Parking Facility would relocate and consolidate surface parking in the Music Concourse area and change parking and circulation conditions in other areas of the Park. Other elements of the GGPCA projects including the TIP (Intra-Park Shuttle, Traffic Calming, Parking Management, Bicycle and Pedestrian Improvements, Road Closures, MUNI Service Improvements, and Cultural Shuttle), and the Phase II Underground Through Street would also serve to enhance the pedestrian character of the Music Concourse and the Park, and reduce the presence of private vehicles in the Park, while still providing access to Park attractions. These changes would be considered positive land use effects in the Park.

VISUAL QUALITY (P. 44)

The Initial Study determined that visual quality effects of the proposed project would not generate significant obtrusive light or glare that could substantially impact other properties. The main structure of the proposed Phase I Underground Parking Facility would not be visible from the surface of the Music Concourse. The only features of the proposed Underground Parking Facility that would be visible from any area in the Park would be the pedestrian entrances to the Music Concourse Bowl, the reconstructed stairs and ramps from the Music Concourse Bowl to the upper Concourse level, the vehicle ramps from Tenth Avenue and Academy Drive (Music Concourse Drive), and the two ventilation structures. The proposed changes would alter the existing landscape features; however, these changes would not degrade the visual character of the Music Concourse and its surroundings and no scenic views would be obstructed.

The re-built portals to the existing pedestrian tunnels at the northeast and southeast of the Music Concourse would be designed to replicate existing features of the tunnel and would not adversely affect the visual quality of the Music Concourse or the historic tunnels themselves. The removal of surface parking areas, reduction of roadway, and increase in landscaped areas around the Music Concourse Area would enhance the natural visual character of the Concourse. If the variant that removed the southwest tunnel were implemented, the north portal would be replaced as an artifact on the Concourse berm, and a new surface pathway would be developed. While this would alter the visual character of a portion of the Concourse

Bowl, it would not be considered a significant adverse impact on the overall visual quality of the Concourse. The relocation of the U.S. Grant monument to its new location would maintain its visibility and mark the entrance to the Music Concourse from Tea Garden Drive. The introduction of a tunnel and ramp at Tenth Avenue at Fulton Street would change the visual configuration of the surface roadway. In the context of the larger Park area, this change would not significantly degrade overall visual quality or park landscape viewed from Fulton Street or adjacent neighborhoods. The proposed ramp at Tenth Avenue and Underground Through Street would involve the removal of approximately 73 trees (18 to accommodate the Phase I ramp at Eighth Avenue near Kennedy Drive, 5 to provide access for the Phase I tunnel and ramp from Tenth Avenue at Fulton Street, and about 50 trees for the Phase II proposed tunnel and ramp at Middle Drive East). Significant views of the Concourse would not be adversely impacted as a result. The Underground Through Street level would be below Kennedy Drive and would thus not significantly alter the visual characteristics of that portion of the road or the Music Concourse area.

The proposed Phase I Underground Parking Facility, Phase II Underground Through Street, and Concourse surface improvements would not significantly affect the visual character of the Music Concourse area. No significant scenic views would be obstructed. Landscape changes would reduce the extent of paved area and would add the pedestrian oasis to the area. The proposed Underground Parking Facility, Underground Through Street, and Concourse surface improvements would not disturb the formal and symmetrical character of the Music Concourse or the naturalistic and pastoral character of its surroundings. The tunnels and ramps at Tenth Avenue, Eighth Avenue, and Middle Drive East would change the visual characteristics viewed from adjacent neighborhoods and roads/pathways; however, these changes would not adversely affect the overall visual quality of the Music Concourse Area or Park.

HISTORIC RESOURCES (P. 68)

None of the resources in the project or Music Concourse area have been determined eligible for individual listing on the National Register; however, Golden Gate Park as a whole has been proposed as a National Register Landmark District, as an historic landscape of significance for a period of significance between 1870 and 1943. A number of buildings, structures, sites and objects throughout the Park are considered to be contributing features to the proposed Golden Gate Park Historic Landmark District. These features are considered to contribute to the overall historical significance of Golden Gate Park, but may or may not meet local, state, or national criteria for listing, or eligibility for listing, as individually significant historic resources. The National Register of Historic Places Registration Form for the proposed historic district identified 123 contributing features including 27 buildings, 55 sites, 11 structures, and 30 objects. Contributing features in the Music Concourse area include: the Music Concourse; Spreckels Temple of Music; Francis Scott Key Monument; Japanese Tea Garden; Shakespeare.Garden; Rhododendron Dell; the pedestrian underpass known as the Tunnel under Main Drive (now Kennedy Drive); and the many monuments and fountains in the Music Concourse.

The Japanese Tea Garden has been determined eligible for listing on the California Register of Historical Resources. The Francis Scott Key Monument, at the east end of the Music Concourse, is listed as City Landmark No. 96 under Article 10 of the San Francisco Planning Code. The Spreckels Temple of Music and the John McLaren Rhododendron Dell also appear individually eligible for listing on the California Register, but have not been formally nominated.

The proposed Phase I Underground Parking Facility and surface improvements to the Music Concourse would involve the removal and reconstruction of paved areas/roads, land features, vegetation, trees, structures, as well as the construction of associated ramps. Existing topography, spatial relationships, vegetation, trees, and structures removed and/or damaged during construction would be replaced and rehabilitated according to Golden Gate Park Master Plan. Phase I would also include construction of several above-ground features including: stairwells, pedestrian ramps, and exhaust shafts. These new elements would be confined to specific areas within the Park including the Music Concourse area, Kennedy Drive and the John McLaren Rhododendron Dell, the Tenth Avenue entrance, Academy Drive, and Middle Drive East. The Music Concourse Bowl and the John McLaren Rhododendron Dell, resources potentially eligible for the California Register, would also be affected. If Phase I were to include the variant removing the southwest pedestrian tunnel and replacing the north portal as an artifact on the Concourse berm, the proposed changes would be minor, and would not materially impair the potential historic significance of the overall Music Concourse landscape. Enough features would remain intact and the Music Concourse would retain important aspects of integrity that the variant would not have a significant adverse impact on historic resources. The Japanese Tea Garden and the Spreckels Temple of Music would not be materially altered by the proposed project.

The overall historic character and configuration of the physical features in the Concourse would not change. Therefore, Phase I would not affect the eligibility of Golden Gate Park as a National Register Historic District.

Construction of the Underground Through Street in Phase II with a ramp south of Kennedy Drive at Eighth Avenue, would require the removal of several trees within an historic windbreak grove and would change the spatial organization of the Music Concourse and Rhododendron Dell (both eligible for individual listing on the National Register). As a result, Phase II (Underground Through Street) would cause a substantial adverse change in the individual significance of the Rhododendron Dell for listing in the California Register as an historic resource. This would be a significant adverse impact.

TRANSPORTATION (P. 100)

Traffic

The traffic analysis included 22 study intersections as locations likely to be affected by the proposed project. These intersections include most of the local intersections adjacent to the concourse, plus those along main access routes to and from Golden Gate Park. The transportation study evaluated intersection operating conditions for the weekday PM peak hour (generally 5:00 to 6:00 PM), as this is the peak period of traffic volumes in the vicinity of the project site. However, the peak activity for recreational and cultural uses occurs on weekends; therefore, intersection operating conditions were also quantitatively evaluated for the Saturday midday and Sunday midday peak hours (generally 2:00 to 3:00 PM). In addition, transit, parking, pedestrian and bicyclists impacts were also evaluated in the transportation study.

A baseline condition was developed to compare transportation conditions without and with the proposed Underground Parking Facility, Phase I, and other Proposition J Transportation Improvement Program (TIP) elements. Baseline conditions are defined as the Existing conditions plus the travel demand associated with the New deYoung Museum and the additional travel demand associated with the reconstruction of the California Academy of Sciences.

In general, parking facilities are considered to accommodate vehicle trips generated by other land uses. That is, vehicles using the Underground Parking Facility would be trips related to visitors to the Park as a whole, or the institutions around the Music Concourse. Also, the project would remove surface parking spaces equal to the number of spaces in the Underground Parking Facility. Therefore, the transportation impacts associated with the project would include vehicle trips that now park elsewhere, as well as future trips resulting from visitor growth at the New deYoung Museum and California Academy of Sciences, and other cumulative traffic growth over time. Those changes would result in increased traffic at some locations, and reduced at others.

Since Phase II would include the Underground Through Street and would close the Music Concourse roadways to through traffic, a reassignment of Park vehicles was conducted for this phase. In addition, Parking Variant 1 and Parking Variant 2 were analyzed for the Underground Parking Facility. Both Variants would remove 60 percent of the total 800 surface spaces in areas east of Crossover Drive. Variant 1 would assume remove of more parking near the Concourse; Variant 2 would remove parking throughout the eastern area of the Park. Both variants would remove 200 spaces from the Concourse itself. Although each variant would remove the same number of on-street parking spaces within the Park, the location of the spaces to be eliminated would be different, and separate vehicle trip assignments and parking assignments were developed for each parking variant.

Phase I, the Underground Parking Facility, with Parking Variants 1 or 2 conditions, would result in a significant traffic impact at the intersection of Fulton/Eighth during the weekday PM peak hour; Level of Service (LOS) would change from LOS C to LOS F. Traffic impacts during the Saturday midday and Sunday midday peak hours would be at LOS B.

Phase II, Underground Through Street, Parking Variant 1 conditions would result in a significant traffic impact at the intersection of Kennedy/Eighth/Underground Through Street ramp in the weekday PM peak hour; LOS would change from C to F during the Saturday midday and Sunday midday peak hours.

The reconfiguration of the Park roadways with Phase I and Phase II, would change circulation through the Music Concourse, the adjacent areas of the Park and the nearby Park access roads. With a result of Phase I, Tenth Avenue at Fulton Street would provide areas only to the parking facility, and would no longer serve as surface access to the Park; therefore, there would be a shift in traffic volumes to Eighth Avenue and an increase in traffic using the Eighth Avenue entrance to the Park. As a result, conditions would worsen at Fulton/Eighth (to LOS F) and Kennedy/Eighth (to LOS F), especially during the weekday PM peak hour.

With Phase II, the Underground Through Street, the Music Concourse roadways would be closed to through traffic and Academy Drive and Tea Garden Drive would be reconfigured into a one-way loop. It is anticipated most of the existing traffic on Academy Drive and Tea Garden Drive would divert to the through street. Access to the Music Concourse from the north would become more difficult, as vehicles entering the Park from Eighth Avenue would need to travel through the through road to Middle Drive East and then enter the Music Concourse from the south. Muni buses and emergency vehicles would use a connector roadway between Academy/Tea Garden Drives and Kennedy Drive.

Parking

Both parking variants assume that of the 800 surface spaces to be removed within the Park, 60 percent (480 spaces) would be removed on roadways east of Crossover Drive and 40 percent (320 spaces) would be removed on roadways west of Crossover Drive. With both parking variants, of the 480 spaces that would be removed on roadways east of Crossover Drive, 200 spaces would be removed from the Music Concourse. Variant 1 assumes that the remaining 280 spaces would be removed from within ¼ mile of the Music Concourse, while Variant 2 assumes that the remaining 280 spaces would be removed somewhere east of Crossover Drive but not concentrated within ¼ mile of the Music Concourse. The specific locations of the parking removal have not been determined at this time.

As a result of the increase in parking supply in the Park with the proposed parking facility, occupancy in the parking study area (the Park east of Crossover Drive and the area bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east) would decrease from Baseline conditions during the three analysis periods. During the weekday midday period, the overall parking occupancy would decrease from 81 percent to 77 percent; during the Saturday midday period, the overall parking occupancy would decrease from 93 percent to 89 percent; and during the Sunday midday period, the overall parking occupancy would decrease from 99 percent to 92 percent / 93 percent (with Parking Variant 1 and 2, respectively)

West of Crossover Drive, the elimination of 320 parking spaces would reduce the parking supply in this area of the Park to 2,440 spaces on weekdays and Sundays, and to 2,110 spaces on Saturdays. Parking occupancy would increase to between 12 and 41 percent, indicating that additional capacity is available and that the removal would not substantially affect the ability of Park visitors to find parking.

The intersection improvements at Tenth/Fulton with Phase I and at King Drive/Middle Drive East and Middle Drive East/Underground Through Street with Phase 2 would require removal of on-street parking The intersection improvements would eliminate 44 parking spaces with Phase 1 and an additional 33 parking spaces under Phase 2.

The implementation of the time-limited parking proposed in the *Golden Gate Park Master Plan* may make about 500 parking spaces in the Park available for short-term use (although some of these spaces may be removed as part of the surface parking removal with Phase I, and may be still used for long-term parking, depending upon the effectiveness of the enforcement program). With Phase I, a portion of the 500 drivers potentially displaced with the implementation of time-limited parking may shift to the proposed parking facility, and short-term visitors to the Park may be more likely to find free parking within walking distance of the Music Concourse.

Muni

With Phase I, increases in traffic volumes on Eighth Avenue, and the associated increases in average delays per vehicle at the intersection of Fulton/Eighth and Kennedy/Eighth would result in increased delays to the Muni 44-O'Shaughnessy bus line, about one to two minutes during the weekday PM peak hour of 5:00 PM to 6:00 PM and about five seconds during the Saturday midday peak hour.

As part of Phase I, to accommodate the changes to Fulton Street with the garage, the existing Muni stops at Tenth Avenue would be relocated to 11th Avenue. In addition, a traffic signal with pedestrian actuation would be provided (the signal would be coordinated with the signal at Fulton/Tenth to minimize delays to vehicles on Fulton Street).

With Phase II, Muni bus operations in the Music Concourse would improve, as there would be a substantial reduction in vehicular volumes (only Muni and emergency vehicles would use the Music Concourse roadways). However, Martin Luther King, Jr. Drive (King Drive) between Academy Drive and Lincoln Way would become more congested with traffic increases resulting from the Underground Through Street, which could potentially increase travel times for the 44-O'Shaughnessy line by about one to two minutes during the weekday PM peak hour and about five seconds during the Saturday midday peak hour.

Pedestrians/Bicycles

Phase I would increase the parking supply in the Music Concourse area and would increase the number of pedestrians that would travel to and from the Music Concourse area. As part of the removal of on-street parking throughout the Park, up to 100 crosswalks locations throughout the Park would be striped to enhance visibility and improve pedestrian safety. The removal of surface parking spaces along roadways throughout the Park and at intersections would provide for additional right-of-way for bicycle travel. The elimination of curb parking would also reduce parking maneuvers and opening door conflicts which hinder bicycle travel.

Tour Buses/Delivery Vehicles

Since the connection between Kennedy Drive and Academy Drive/Tea Garden Drive would be closed to all vehicles (except Muni and emergency vehicles) with Phase II of the Project, all tour buses and school buses would need to access the Music Concourse from King Drive. In addition, the closure of the connection may result in minor rerouting of delivery/service vehicles destined to the New deYoung, California Academy of Sciences or the Hagiwara Japanese Tea Garden, as these vehicle may would likely use the Underground Through Tunnel, depending upon their origin.

Construction

The intersection improvements at Tenth Avenue would require the permanent relocation of the MUNI bus stop to Eleventh Avenue. Both Academy Drive and Tea Garden Drive (and adjacent sidewalks) between Kennedy Drive and the band shell would be closed for the duration of the construction period. In addition, Kennedy Drive in the vicinity of Tenth Avenue would be temporarily closed for about 10 months during the excavation and construction of the garage driveway.

The closure of the Music Concourse roadways during construction would require the temporary rerouting of the Muni 44-O'Shaughnessy bus line and relocation of the bus stops on Academy Drive and Tea Garden Drive. The 44-O'Shaughnessy could potentially be rerouted to Kennedy Drive, Bowling Green, Middle Drive East and King Drive. Temporary bus stops could be located on Middle Drive East near the CAS entrance.

During the construction, primarily on weekdays, truck traffic would cause a temporary lessening of street capacity due to the slower movement and larger turning radii of trucks. Construction workers would also cause a temporary parking demand.

Construction activities associated with the proposed project would overlap the construction of other planned projects, include the New deYoung Museum and the planned California Academy of Sciences. Construction activities associated with these projects would affect access, traffic operations, bus operation and pedestrian movements. The potential overlapping construction of these projects may result in temporarily increased congestion in the area, plus inconveniences to motorists, pedestrians, bicyclists and transit patrons.

A detailed and coordinated plan that would address construction vehicle routing, traffic control and pedestrian movement adjacent to the construction area would be required as part of project approval.

Year 2015 Cumulative Conditions

By 2015, there is anticipated to be a substantial increase in traffic volumes, resulting from background growth independent of specific projects, analyzed along the major streets outside the Park, including Park Presidio Boulevard/Crossover Drive, Fulton Street and Stanyan Street, and along Kennedy Drive and Kezar Drive/King Drive inside the Park. As a result, most of the study intersections along these streets would operate at LOS E or F during the three study periods.

With Phase I, 7 of the 21 intersections would operate with unacceptable conditions during the weekday PM peak hour, 4 of the 21 intersections would operate with unacceptable conditions during the Saturday midday peak hour, and 3 of the 17 intersections would operate with unacceptable conditions during the Sunday midday peak hour. The addition of Phase II of the Project would cause 1 additional intersection to operate with unacceptable conditions during the weekday PM peak hour, but no additional intersections during the Saturday midday and Sunday midday peak hours.

Based on the Proposed Project's contribution to the 2015 Cumulative conditions, the Proposed Project would be considered to have a significant contribution to cumulative conditions at three of the intersections that would operate at LOS E or F, and would be considered to not have a significant contribution to the 2015 Cumulative conditions at the other intersections that would operate at LOS E or F.

(See also Section C of this Summary which describes mitigation measures to improve LOS conditions that would avoid significant adverse impacts of the proposed project Phase I and Phase II.)

NOISE (P. 164)

Land uses in the vicinity of Golden Gate Park include residential and institutional uses. Although other noise sources occur in the vicinity, vehicular traffic is the primary source of noise within and around the Park. Existing ambient daytime noise levels were measured at six selected locations around the Music Concourse in order to identify representative noise levels. Existing 24-hour noise levels were also measured at the intersection of Tenth Avenue and Fulton Street throughout a weekend. The average daytime noise levels and 24-hour noise levels and sources of noise measured at each location ranged from a short-term minimum $L_{(min)}$ of 41.0 dBA at the AIDS Memorial Grove to a short-term maximum $L_{(max)}$ of 99 dBA at the southwest corner of Fulton Street and Tenth Avenue. The latter noise is likely due to instantaneous noise generated by a car stereo or a siren.

Temporary construction activities associated with Phase I would impact the existing buildings in the Music Concourse area, including the deYoung Museum and the California Academy of Sciences. Construction noise levels could reach levels of 89 dBA L_{eq} during the daytime outside these buildings. Assuming that the noise levels would be reduced by 6.0 dBA at a distance of 100 feet from the construction area, they could also exceed the City's 80 dBA L_{eq} standard during the excavation/grading and exterior finishing phases of development. This impact would be potentially significant without mitigation.

The primary noise effects of Phase I, the proposed Underground Parking Facility and surface improvements, would be the resulting changes in local circulation patterns and localized changes in roadway noise levels. However, the changes in motor vehicle trips and circulation patterns during the regular session would increase local noise levels by a maximum of 0.6 dBA L_{dn}, which is inaudible/imperceptible to most people. The noise levels along several roadway links would also be reduced as a result of the changes in circulation patterns that would occur under Phase I of the project. Because the roadway noise levels at all locations would increase by less than 3 dBA L_{dn}, Phase I would not generate increased local traffic volumes that cause a substantial permanent increase in ambient noise levels in the project vicinity.

The primary noise effects of Phase II, the Underground Through Street and tunnel, would be the resulting changes in local circulation patterns and the resulting localized concentrations of air pollutants. As with Phase I, the changes in motor vehicle trips and circulation patterns would increase local noise levels by a maximum of 0.6 dBA L_{dn}, which is inaudible/imperceptible to most people. In addition, noise levels along several roadway links would be reduced as a result of the changes in circulation patterns that would occur under both phases of the project.

Future noise levels were also assessed, and all locations showed an increase of less than 3 dBA L_{dn}. Cumulative development, including the Golden Gate Concourse Authority Projects, would not result in a substantial and permanent increase in ambient noise levels in the project vicinity and the contribution of the Golden Gate Concourse Authority Projects would not be cumulatively considerable.

AIR QUALITY (P. 175)

Land uses in the vicinity of Golden Gate Park include residential, office, commercial, and institutional uses. Local emissions sources include stationary activities (such as space and water heating), landscape maintenance, consumer products, and mobile sources (primarily automobile and truck traffic). Motor vehicles are the primary source of pollutants in the Park.

Construction activities for Phase I would generate airborne dust that could adversely affect the surrounding area. The principal pollutant of concern would be PM_{10}. Construction activities associated with Phase I could also generate airborne odors associated with the operation of construction vehicles and the application of architectural coatings. However, these emissions would occur during daytime hours only and would be isolated to the immediate vicinity of the construction sites. Therefore, this activity and would not affect a substantial number of people or cause a significant impact.

When completed, the proposed Phase I Underground Parking Facility and surface improvements would not generate any new sources of air pollutant emissions. Phase I would not add any new equipment that would generate emissions or new operations with emission of ROG, NO_x or PM_{10}. The primary air quality effects of Phase I, the Underground Parking

Facility and surface improvements, would be the changes in local circulation patterns and the resulting localized concentrations of air pollutants.

Maximum existing CO concentrations were calculated for intersections evaluated in the Golden Gate Concourse Authority Projects Transportation Study that operate at existing levels of service (LOS) D, E, or F. Calculations were based on a simplified CALINE4 screening procedure developed by the BAAQMD and presented in its *CEQA Guidelines*. Under worst-case conditions, CO concentrations near all of the study area intersections would not exceed national or State 1-hour and 8-hour ambient CO standards.

Cumulative increases in CO concentrations near the same intersections described under existing conditions would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards when the Underground Parking Facility is operational. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the potential impacts of the Underground Parking Facility and surface improvements would be less than significant.

The Underground Parking Facility would also include a ventilation system incorporating three street-level air intake grills for each garage section and two ventilation structures to be shielded in the landscape to the east to the Concourse. The primary air pollutant of concern that would be emitted through the ventilation structures would be CO, since it is directly emitted from of motor vehicles. CO does not adversely affect plant life, only breathing animals. Therefore, the CO emissions from these structures would not affect the surrounding vegetation. The localized concentrations of CO near the roadways in the study area would not exceed adopted CO standards and there would be much fewer vehicles operating within the Underground Parking Facility than on the roadways. Therefore, the emission of CO from these structures would not adversely affect people at Golden Gate Park. The ventilation structures would be up to 10 feet high and would carry emissions above the surface to locations away from where people congregate for long periods of time.

Construction activities and emissions associated with Phase II would be similar to Phase I. As with Phase I, the primary air quality effect of Phase II, the Underground Through Street and tunnel, would be the resulting changes in local circulation patterns and the resulting localized concentrations of air pollutants. Future CO concentrations near these intersections would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards when Phase II is completed.

GROWTH INDUCEMENT (P. 191)

Total development for the proposed project would include an Underground Parking Facility. Employment at the site would increase by about three staff members during daily operations. Open space and pedestrian improvements would also be proposed as part of the project. Lastly, transportation and circulation improvements would occur as part of the project.

The Underground Parking Facility itself would replace existing surface parking in Golden Gate Park by a one-to-one ratio. The project would, therefore, not create any additional parking overall. The project would reorganize the location of parking. However, the Music Concourse itself would continue to function in a recreational and open space capacity.

Changes are not anticipated to significantly intensify use of the various buildings in the area beyond replacement which is currently projected for the adjacent institutions. These changes would not be expected to result in economic expansion or growth or encroachment upon undeveloped open space. Employment growth would be so minimal, that it would not be reflected directly in increased demand for housing and City services to residents.

Therefore, the proposed project would be not considered growth inducing.

C. MITIGATION MEASURES (P. 193)

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the project. Some of these measures have been, or would be, adopted by the project sponsor and, therefore, are proposed as part of the project; some are under consideration. Implementation of some measures may be the responsibility of public agencies.

Each mitigation measure and its status are discussed below. Measures from the Initial Study (see Appendix A, p. A.1) proposed as part of the project are indicated with an asterisk (*) and follow mitigation measures of topics discussed in the EIR. Mitigation measures identified in this EIR and in the Initial Study would be required by decision makers as conditions of project approval unless they are demonstrated to be infeasible based on substantial evidence in the record.

A. TRANSPORTATION

Mitigation Measures Proposed as Part of the Project

The Project Sponsor would work with the Department of Parking and Traffic (DPT), Recreation and Park Department, Department of Public Works, and/or the Planning Department to implement the following measures.

Phase I

1. Under the Baseline plus Phase I, Parking Variants 1 and 2 scenario, the proposed project would result in a significant impact to the **Fulton/Eighth** intersection during the weekday PM peak hour. Restripe the northbound approach of the intersection to provide a left-turn pocket (convert the existing left-through-right lane into a through-right lane). Restriping of the northbound approach would require the elimination of on-street parking along the both the east and west sides of Eighth Avenue between Fulton Street and Kennedy Drive. With this measure, the intersection operations would improve to LOS C.

This intersection would operate at LOS B during the Saturday midday peak hour with signalization.

Improvement Measures Proposed as Part of the Project

Surface Circulation

2. The following Improvement Measures would improve vehicular circulation in and around the Music Concourse area to account for the effects associated with Phase I:

    a. Redirect and re-sign the access from Park Presidio Boulevard to Golden Gate Park in the vicinity of the Music Concourse. Separate directions could be provided for access to the garage (Tenth Avenue) and the Park (Eighth Avenue).

b. With Phase I, possibly reroute inbound traffic from Park Presidio Boulevard away from Tenth and Eighth Avenues. For instance, vehicles could be directed to turn right at Cabrillo Street, turn left to Fourteenth Avenue, and turn left to Fulton Street. In conjunction, explore the feasibility of creating a left-turn pocket from southbound Park Presidio to eastbound Fulton Street, and a left-turn pocket from westbound Fulton Street to southbound Crossover Drive to improve access between the garage and Park Presidio/Crossover Drive/Nineteenth Avenue.

c. With Phase II, reconfigure the intersection of Kennedy/Academy/Tea Garden to physically restrict access between Kennedy Drive and Academy/Tea Garden Drives, except for Muni and emergency vehicles only.

d. With Phase II, redirect and re-sign access from north of the Park (Eighth Avenue) and Kennedy Drive to the Music Concourse area via the Underground Through Street.

Garage Operations

3. The following improvement measures would improve operations of the Phase I parking facility:

   a. Install variable electronic signage at the entrances to provide information regarding the availability of parking within each level and each side of the facility and whether the parking is fully occupied. Provide signage along Fulton Street (for traffic in the eastbound, westbound, and southbound directions) and Academy Drive to notify potential parkers of the current garage occupancy. These signs would be operated by garage staff, and would include video cameras to monitor the queuing situation at the garage entrances.

   b. Coordinate with institutions holding special events so that special staffing arrangements and changes to the vehicular circulation would occur; and station parking control officers at the intersection of King/Academy to direct and control exiting traffic (to ensure that vehicles do not block northbound Academy Drive traffic) after special events.

Parking

4. The following improvement measures would improve parking conditions to account for the effects associated with Phase I:

   a. Install signage throughout the Park and the major access roadways directing vehicles to the parking facility and coordinate with the California Academy of Sciences, deYoung Museum and Hagiwara Japanese Tea Garden staff to include directions, hours of operation and parking rates on the institutions' telephone system, web site and other informational material.

Transit

5. The following improvement measures would improve transit operations to account for the effects associated with the proposed project:

   a. Install the relocated Muni bus stops at 11th/Fulton and a new traffic signal with pedestrian actuation and new crosswalks at 11th/Fulton. This signal would be interconnected with the signal at Tenth/Fulton to minimize delays to vehicles on Fulton Street.

   b. Restripe the northbound approach at the intersection of Fulton/Eighth to provide a left-turn pocket. Although this measure was listed as a mitigation measure for traffic impacts under the Baseline plus Project Phase I conditions, it could be performed separately to improve bus operations along Eighth Avenue.

   c. Eliminate on-street parking along King Drive to reduce the potential for conflicts between parking vehicles and buses. These spaces could be included as part of the 800 surface parking spaces to be eliminated with the construction of the garage.

   d. Develop measures to improve bus operations along King Drive, including the provision of a reversible transit-only lane on King Drive. Muni has expressed interest in improving transit operations along King Drive to improve existing conditions, primarily delays to buses in the southbound direction. Additional analyses may need to be performed along King Drive to determine if changes to the roadway configuration would be possible.

Pedestrians

6. Phase I:

   a. With Phase I, install pedestrian crossing signals (i.e., WALK/DON'T WALK indicators) at Fulton/Eighth and Fulton/Tenth to improve pedestrian crossing of Eighth Avenue and Tenth Avenue, respectively. Pedestrian crossing signals are already provided at these intersections for crossing Fulton Street.

   b. The pedestrian signals would help facilitate pedestrian movements at these locations. Install pedestrian crossing signals (i.e., WALK/DON'T WALK indicators) at Lincoln/ Ninth to improve pedestrian crossing of Lincoln Way and Ninth Avenue; establish crosswalks at all new intersections created (or intersections substantially reconfigured) with the proposed project; and reconstruct the intersection of King/Academy to tighten the radius at the corners to reduce distance for pedestrians to cross intersection and to reduce the travel speed of vehicles.

Bicycles

7. With Phase I, provide a bicycle lane or wide curb lane on Academy Drive and Tea Garden Drive as part of the Music Concourse surface improvements.

Loading

8. With Phase II, redirect and re-sign access from north of the Park (Eighth Avenue) and Kennedy Drive to the Music Concourse area via the Underground Through Street. Coordinate with the California Academy of Sciences, deYoung Museum and Hagiwara Japanese Tea Garden staff to reroute delivery/service vehicles and tour/school buses to account for the closure of the connection between Kennedy Drive and Academy/Tea Garden Drives

Construction

9. With Phase I and Phase II, determine feasible traffic mitigation measures to reduce traffic congestion, including transit disruption and pedestrian circulation impacts during construction of the proposed project. In addition, the project sponsor would need to develop detailed construction detour plans to redirect vehicular, transit, bicycle and pedestrian traffic when Kennedy Drive is closed and when Academy and Tea Garden Drives are closed. It may be possible to construct a single-lane bridge (using steel plates) to mitigate circulation impacts associated with the construction closure of Kennedy Drive.

   The temporary parking demand by construction workers could be met within the on-street parking in the Park, especially to the area west of the Music Concourse and would not affect general parking conditions in the adjacent neighborhoods. However, if time-limited parking is implemented prior to completion of the parking garage, construction workers would need to park on King Drive west of Crossover Drive and west of Stow Lake on Kennedy Drive.

   Since construction of the proposed project would overlap with construction of the New deYoung and the rehabilitation/reconstruction of the CAS, the construction contractor(s) for each project would need to coordinate their construction schedules and activities to avoid conflicts. In addition, it may be possible to coordinate deliveries and hauling between the projects to minimize the number of trucks destined to and from the projects site each day. Furthermore, it may be possible to share construction worker parking locations, either off-site or within the proposed project after the garages are constructed.

   It is anticipated that the construction contractor for each phase or project would work with the various City departments (including Planning, Muni, DPT, DPW, or the Fire Department) to develop a detailed and coordinate plan to address construction vehicle routing, traffic control, pedestrian walks and transit stop relocation.

Mitigation Measure for Year 2015 Cumulative Conditions

With 2015 Cumulative with Phase I conditions, eight intersections would operate at LOS E or F during either the weekday PM peak hour, Saturday midday peak hour or Sunday midday peak hour. Phase II would result in a significant impact at one additional intersection during the weekday PM peak hour. Based on the contribution to the 2015 Cumulative conditions, the Project would be considered to have a significant contribution to cumulative conditions at three of the intersections that would operate at LOS E or F:

- Fulton/Eighth (with Phase I),
- Kennedy/Eighth (with Phase I and with Phase II): and
- King/Middle Drive East (with Phase II). At the other intersections that would operate at LOS E or F, the project would not have a significant contribution to the 2015 Cumulative conditions.

Intersections with Significant Project Contributions

The following mitigation measures would improve the 2015 Cumulative intersection operations to acceptable conditions.

10. Fulton/Eighth (Phase I – weekday PM): Restripe the northbound approach to provide a left-turn pocket (convert the existing left-through-right lane into a through-right lane) and create a westbound left-turn pocket. It should be noted that the provision of the northbound left-turn pocket and westbound left-turn pocket would require the elimination of on-street parking on Eighth Avenue and Fulton Street (but could fit within the existing street right of way). With this mitigation measure, the intersection operations would improve to LOS C. With these changes, the intersection would continue to operate acceptably during the Saturday midday and Sunday midday peak hours.

11. Kennedy/Eighth (Phase I – weekday PM): Restripe the southbound approach to provide a left-turn pocket (convert the existing left-right lane into a right-turn only lane). It should be noted that it would be possible to create this southbound left-turn pocket with the proposed northbound left-turn pocket at Fulton Street (see above), with each pocket about 100 feet long. With this mitigation measure, operations at the worst approach at the intersection would improve to LOS E, and all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably. With this change, the intersection would continue to operate acceptably during the Saturday midday peak hour.

12. Kennedy/Eighth/Underground Through Street (Phase II – weekday PM): Signalize intersection. With this measure, the intersection operations would improve to LOS C.

With this change, the intersection would operate at LOS B during the Saturday midday peak hour.

13. Kennedy/Middle Drive East (Phase II – weekday PM): Restripe the northbound approach to provide a right-turn pocket (convert the existing through-right lane into a through-only lane) and restripe the southbound approach to provide a left-turn pocket (convert the existing through-left lane into a through-only lane). The provision of these turn pockets would require the elimination of on-street parking along both northbound and southbound King Drive. With this mitigation measure, operations at the worst approach at the intersection would continue to operate at LOS E, but all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably. With these changes, the intersection would continue to operate acceptably during the Saturday midday and Sunday midday peak hours.

Intersections with Less-than-Significant Project Contributions for which Mitigation Measures can be Developed

The following mitigation measures would improve the 2015 Cumulative intersection operations to acceptable conditions. The Project would not be considered to have a significant contribution to cumulative conditions at these intersections:

14. Park Presidio/Fulton (Saturday midday, Sunday midday): Retime the intersection signal to increase the cycle length (from 85 to 90 seconds) and increase the proportion of green time provided to Park Presidio Boulevard. With this mitigation measure, the intersection operations would improve to LOS D on Saturday and Sunday peak hours. However, these changes would not improve operations in the weekday PM peak hour to acceptable conditions. It should be noted that signal timing changes are not typically considered mitigation measures, as they are anticipated to occur through DPT's continuing intersection monitoring program. The signal at this intersection is coordinated with the other signals along Park Presidio Boulevard to ensure traffic flow in the northbound and southbound directions. As a result, a signal timing analysis may need to be performed for Park Presidio Boulevard to determine if the proposed signal timing changes and increase in cycle length would be feasible.

15. Fulton/Stanyan (weekday PM, Saturday midday and Sunday midday): Restripe the southbound approach to convert the right-turn only lane to a through-right lane, prohibit eastbound and westbound left-turns during Saturday and Sunday midday periods (similarly to what already occurs during the weekday PM peak period) and retime the signal.[1] The restriping of the southbound approach would require the elimination of on-street parking along the west side of Stanyan Street south of the intersection. In addition, it is anticipated that left-turn prohibition would be in effect seven days of the week between 7:00 AM and 7:00 PM. With this measure, the intersection operations would improve to LOS D during the weekday PM peak hour, Saturday midday peak hour and Sunday midday peak hour.

16. Kennedy/Eighth (weekday PM): Restripe the southbound approach to provide a left-turn pocket (convert the existing left-right lane into a right-turn only lane). It should be noted that it would be possible to create this southbound left-turn pocket with the proposed northbound left-turn pocket at Fulton Street (see above), with each pocket about 100 feet long. With this measure, operations at the worst approach at the intersection would improve to LOS E, and all other approaches would operate acceptable. As a result, the intersection would be considered to operate acceptably.

B. NOISE

Mitigation Measures Proposed as Part of the Project

17. The project contractor would use equipment and trucks with noise control (e.g., improved exhaust mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts. Before project construction, all construction equipment (except for impact tools, pavement breakers and jackhammers) will be tested to ensure that equipment noise does not exceed an average level of 80 dBA at 100 feet.

18. The project contractor would prohibit truck and heavy equipment operations during the nighttime hours (8:00 PM to 7:00 AM) to minimize potential disturbance of adjacent residents.

19. The project contractor would locate stationary construction noise sources, such as compressors, as far from adjacent residences as possible. If it were necessary to locate equipment near existing residences, they shall be enclosed within temporary sheds.

20. The project contractor would use hydraulically or electrically powered impact tools (e.g., jack hammers, pavement breakers and rock drills) wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA.

21. The project sponsor would require project construction contractor(s) to pre-drill piling holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. If pile driving is required, the project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.

C. AIR QUALITY / CLIMATE

Mitigation Measures Proposed as Part of the Project

22. The project sponsor would require the contractor(s) to spray unpaved areas of the site with water during excavation and construction activities at least twice per day; cover

stockpiles of soil, sand, and other material; cover trucks hauling debris, soil, sand or other such material; sweep paved access roads, parking areas, staging areas and surrounding streets during excavation and construction at least once per day to reduce particulate emissions; hydroseed or apply non-toxic soil stabilizers to inactive construction areas and exposed stockpiles; limit traffic speeds on unpaved roads to 15 miles per hour; install sandbags or other erosion control measures to prevent silt runoff to public roadways; replant vegetation in disturbed areas as quickly as possible; install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site; install windbreaks at the windward sides of the construction areas; and suspend excavation and grading activities when wind (instantaneous gusts) exceeds 25 miles per hour.

23. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the construction period.

D. GEOLOGY / TOPOGRAPHY

Mitigation Measures Proposed as Part of the Project

24. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponso would ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent building for damage during construction, if recommended by the geotechnical engineer.

25. If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor shall delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

26. The project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

E. WATER QUALITY

Mitigation Measures Proposed as Part of the Project

27. If dewatering were necessary, the project sponsor would follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.

    If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

28. The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

F. HAZARDS

Mitigation Measures Proposed as Part of the Project

29. In addition to local, state, and federal requirements for handling hazardous materials and soil and groundwater containing chemical contaminants, the project sponsor would enter into a voluntary remedial action agreement with the Department of Public Health pursuant to Health and Safety Code Section 101480 et seq. At a minimum, the project sponsor would undertake the following work and any additional requirements imposed by the Department of Public Health under the agreement.

    a. Phase I Environmental Site Assessment would be prepared for the project site. It would list current and past uses of the site, review environmental agency databases and records, report site reconnaissance observations, and summarize potential contamination issues, including any that warrant further investigation.

The assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

If warranted on the basis of the Phase I study, a Phase II Environmental Site Assessment would be prepared for the project site. It would involve the collection and analysis of soil and groundwater samples as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. The project sponsor would conduct a soil and groundwater investigation to assess the potential for possible fuel releases from former underground fuel storage tanks and ancillary piping and dispensers located on site. Soil or groundwater samples, or both, would be collected throughout the project site as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. This assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

If the Phase I or Phase II assessments result in earth-moving activity that requires preparation of a Site Safety and Health Plan, in addition to measures that protect on-site workers, the plan would include measures to minimize public exposure to contaminated soils. Such measures would include dust control, appropriate site security, restriction of public access, and posting of warning signs, and would apply from the time of surface disruption through the completion of earthwork construction.

b. Prior to any demolition or excavation at the project site, surveys would be conducted to identify any potentially hazardous materials (other than asbestos and lead) in existing buildings or building materials. At a minimum, these surveys would identify any polychlorinated biphenyls, mercury, or other hazardous materials that would require removal and disposal before demolition. These surveys would be completed by a Registered Environmental Assessor or a similarly qualified individual.

c. All reports and plans prepared in accordance with this mitigation measure would be provided to the San Francisco Department of Public Health and any other agencies identified by the Department of Public Health. When all hazardous materials have been removed from existing buildings, and soil and groundwater analysis and other activities have been completed, as appropriate, the project sponsor would submit to the San Francisco Planning Department and the San Francisco Department of Public Health (and any other agencies identified by the Department of Public Health) a report stating that the mitigation measure has been implemented. The report would describe the steps taken to comply with the mitigation measure and include all verifying documentation. The report would be certified by a Registered Environmental Assessor or a similarly qualified individual who states that all necessary mitigation measures have been implemented.

G. CULTURAL RESOURCES

Mitigation Measures Proposed as Part of the Project

30. Archaeological Resources

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures would be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor would retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archeology. The archaeological consultant would undertake an archaeological testing program as specified herein. In addition, the consultant would be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant would prepare an archaeological research design (ARD) that would include an historical context, an assessment of research potential in terms of research questions, and an evaluation of the significance as an historical resource (CEQA Guidelines Sect. 15064.5 (a)(c)) of the expected archaeological resources. The archaeological consultant's work would be conducted in accordance with this measure at the direction of the ERO. All plans and reports to be prepared by the consultant as specified herein would be submitted first and directly to the ERO for review and comment, and would be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend project construction activities for up to a maximum of four weeks. At the direction of the ERO, the suspension of project activities can be extended beyond four weeks only if such a suspension is necessary and is the only feasible means to reduce to a less than significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant would prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program would be conducted in accordance with the approved ATP. The ATP would identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and locations recommended for testing. The purpose of the archaeological testing program would be to determine to the extent possible the presence or absence of archaeological resources, to identify any archaeological resources found, and to evaluate the significance of any archaeological resources found as an historical resource.

At the completion of the archaeological testing program, the archaeological consultant would submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant would determine if additional measures are warranted.

Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

a. the proposed project would be re-designed so as to avoid any adverse effect on the significant archaeological resource; or

b. data recovery program would be implemented.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program would be implemented, the archaeological monitoring program would minimally include the following provisions:

- The ERO in consultation with the archaeological consultant would determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., would require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;

- The archaeological consultant would advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

- The archaeological monitor(s) would be present on the project site until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;

- The archaeological monitor would record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit would cease. The archaeological monitor would be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the resource is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity would be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant would immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant would make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources were encountered, the archaeological consultant would submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program would be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO would meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant would submit the a draft ADRP to the ERO. The ADRP would identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods would not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP would include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity would comply with applicable State and Federal laws. This would include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American

Heritage Commission (NAHC) who would appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD would make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant would submit a Draft Final Archaeological *Resources* Report (FARR) to the ERO evaluating the historical importance of the archaeological resource and describing the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s). Information that may put at risk any archaeological resource would be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR would be distributed as follows: the San Francisco Redevelopment Agency (number of copies as required by SFRA); California Archaeological Site Survey Northwest Information Center (1 copy) and the President of the Landmarks Preservation *Advisory* Board (1 copy). The Major Environmental Analysis division of the Planning Department would receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

31. Historic Resources

Impacts on the Rhododendron Dell resulting from Phase II reduce by observing all of the *Secretary of the Interior's Standards for Rehabilitation*. The location and siting of the Kennedy Drive vehicular ramp could be reconsidered with a greater effort to retain and preserve the historic features and character of the historic resource. Design considerations should maintain the exclusive pedestrian character of the Rhododendron Dell. A landscape plan should coordinate efforts to rehabilitate Park vegetation damaged by the construction and to protect the integrity of the Rhododendron Dell. Measures should also be taken to protect existing planting beds and ornamental trees. This measure would reduce but not eliminate a significant adverse impact to historic resources of the Rhododendron Dell.

D. ALTERNATIVES (P. 209)

ALTERNATIVE A: NO PROJECT

The No-Project Alternative would entail no changes in Golden Gate Park; Proposition J projects would not be implemented. The proposed Underground Parking Facility and the Underground Through Street would not be built. Monuments, architectural features, and landscaping on the project site would not be altered or relocated. Middle Drive East, John F. Kennedy Drive, Academy Drive, Tea Garden Drive, Tenth Avenue, Eighth Avenue and Fulton Street would not be altered. The Music Concourse would continue to be used for surface parking, open space, seating, and pedestrian pathways. Approximately three acres would be returned to a pedestrian oasis. However, some traffic and surface improvements examined and approved under the *Golden Gate Park Master Plan* would still occur on the site.

If the No-Project Alternative were implemented, none of the potential impacts associated with the proposed project would occur. The environmental characteristics of this alternative would be generally as described in the environmental setting sections of Chapter III.

ALTERNATIVE B: PHASE I ONLY

This alternative would provide an Underground Parking Facility only, consistent with Phase I of the proposed project. All of the project elements would be consistent with Phase I of the project described in Chapter II of the EIR. All of the alternatives that include Phase I of the proposed project would also consider the variant to the southwest pedestrian tunnel described in Chapter II of the EIR. Therefore, these alternatives would result in similar impacts to those associated with the variant in Chapter III of this EIR.

This alternative would have the same impacts on air quality, noise, visual quality, transportation, land use, and historic resources as Phase I of the proposed project including adverse effects on the Music Concourse as an historic resource, if the variant removing the southwest pedestrian tunnel were implemented. This alternative would avoid impacts to the historic character of Rhododendron Dell because the project would no longer involve development of the Underground Through Street and ramp at Eighth Avenue and Kennedy

Drive, which would result in disturbance of certain portions of the windbreak protecting the Dell. Transportation effects and mitigation would be similar to Phase I with the project. Cumulative traffic impacts would be similar to the project.

ALTERNATIVE C: PHASE I ONLY, WITH MUNI AND EMERGENCY VEHICLE ACCESS

This alternative would provide an Underground Parking Facility only, consistent with Phase I of the proposed project. With this alternative, however, through access would be eliminated between Kennedy Drive and the Music Concourse, with the exception of access for MUNI and emergency vehicles. The connection between King Drive and the Music Concourse roadways (Academy Drive and Tea Garden Drive) would be restricted solely to Muni and emergency vehicles. Vehicular access to the Music Concourse roadways for pick-up and drop-off, buses and taxis would be restricted to a one-way loop, with Academy Drive (northbound) and Tea Garden Drive (southbound) connecting to King Drive.

This alternative would have the same impacts on air quality, noise, visual quality, land use, and historic resources as associated with Phase I of the proposed project. This alternative would eliminate historic resource impacts to the Rhododendron Dell because the project would no longer involve development of the Phase II Underground Through Street and ramp at Eighth Avenue and Kennedy Drive.

With Alternative C, the unsignalized intersection of Kennedy/Middle Drive East would operate at LOS F in the weekday PM. In the weekday PM, the unsignalized intersection of King/Middle Drive East would operate at LOS E/F. Mitigation measures are identified in Chapter VI that would reduce those intersections conditions to acceptable levels. Cumulative impacts would be similar to these with the proposed project.

ALTERNATIVE D: RAMP UNDER KENNEDY DRIVE TO UNDERGROUND THROUGH STREET

Alternative D would include the Phase I Underground Parking Facility and the Phase II Underground Through Street. The through roadway would include a ramp at Eighth Avenue, with a grade-separation under Kennedy Drive, continuing as an underground street to a Middle

Drive East ramp. The Underground Through Street would not connect to the parking facility. The Kennedy Drive grade separation would require narrowing of Kennedy Drive, and possibly realigning it to the south, to provide adequate grades for the Eighth Avenue entry. This alternative would change circulation conditions at Eighth Avenue and Kennedy Drive and may displace park landscaping and existing monuments east of the Concourse. This alternative would remove all access between Tea Garden Drive and Kennedy Drive. An alternate route for MUNI, which currently enters the Concourse from Eighth Avenue at Fulton Street, would be required; the alternate route is not known at this time.

Impacts on historical resources would be the same as discussed under the proposed Phase I and Phase II; the historic integrity of the Rhododendron Dell would still be diminished by Phase II. Impacts on visual resources would be similar to the proposed project with the exception of the Eighth Avenue ramp to the Underground Through Street, which would now be located north of Kennedy Drive, altering the view entering the Park. However, in the context of the larger Park area, this change would not be likely to degrade overall visual quality or obstruct any scenic views.

Alternative D would have significant impacts to intersection conditions at the Fulton/Stanyan, King/Crossover and King/Middle Drive East intersections during the weekday PM peak hour and during the Saturday midday peak hour. Mitigation Measures identified in Chapter VI would improve conditions to acceptable levels. The adverse LOS at King Drive/Crossover Drive could not be avoided; this would be a significant impact of this alternative. In addition, the closure of the connection between Kennedy Drive and the Music Concourse roadways to all traffic would require rerouting of the MUNI 44-O'Shaughnessy bus line to other roadways within the Park, or possibly the Underground Through Street. Air quality and noise impacts of this alternative would be less than significant.

ALTERNATIVE E: SURFACE THROUGH STREET

This alternative would include the Phase I Underground Parking Facility and new surface access from Eighth Avenue to the Concourse area. The new surface through street to Middle Drive East would include a roundabout at the site of existing surface roadways. The roundabout, at the east end of the Concourse would include MUNI, bus, and other vehicle passenger loading and unloading. The through street would continue to Middle Drive East adjacent to the California Academy of Sciences. In addition, the connection between Kennedy Drive and Academy Drive/Tea Garden Drive would be eliminated, and Academy Drive and Tea Garden Drives would be converted into cul-de-sacs. Alternative E assumes a four-way stop at Kennedy Drive and Eighth Avenue and would not require narrowing or re-alignment of Kennedy Drive. Access to Tea Garden Drive and Academy Drive would be from King Drive. Academy and Tea Garden Drives would be two-way and would provide emergency and ADA access only to the institutions.

The introduction of a new circulation feature and pattern in the Music Concourse would alter spatial relationships and circulation patterns important to defining the character of the Music Concourse and may threaten its potential eligibility for the California Register. Visual impacts would also be similar to the proposed project with the exception of the Eighth Avenue and Middle Drive East entry ramps, which would be eliminated along with associated visual impacts.

Alternative E conditions would have significant impacts at the intersection operating conditions at the intersection of Kennedy/Eighth during the weekday PM peak hour. Mitigation Measures are identified in Chapter VI that would improve conditions to acceptable levels. Noise and air quality impacts would be less than significant.

ALTERNATIVE F: TRAFFIC LOOP

Alternative F would include the Underground Parking Facility as with Phase I of the proposed project. Alternative F would also include a new vehicular tunnel, traffic loop, and entrance for the eastern end of the Music Concourse. The proposed connection would begin at the Eighth Avenue entry and descend under Kennedy Drive. The road would emerge from under Kennedy Drive near the northwest corner of the Rhododendron Dell and then form a traffic loop at the eastern end of the Music Concourse. Kennedy Drive would be narrowed and re-aligned to allow for the grade separation. This alternative would not include the Phase II Underground Through Street to Middle Drive East.

Impacts on historic resources would be the same as with the proposed Phase II, including adverse impacts to the Rhododendron Dell. Impacts on visual resources would be similar to Phase II proposed project, with the exception of the Eighth Avenue ramp to the Underground Through Street, which would be north of Kennedy Drive, altering the view entering the Park. However, in the context of the overall Park, this change would not degrade visual quality or obstruct any scenic views. Air quality and noise impacts would be less than significant.

Alternative F conditions would not have any significant impacts to intersection operating conditions during the weekday PM, Saturday midday and Sunday midday peak hours. Eighth Avenue would remain open to vehicles during Sunday road closure conditions, and the need for traffic control officers and gates at the entrance to the Park would be eliminated. This alternative would not have a considerable contribution to significant cumulative traffic impacts.

OTHER ALTERNATIVES CONSIDERED

In 2001, the Golden Gate Park Concourse Authority engaged in a conceptual design study, including public outreach and review of a series of alternatives for potential Underground Parking Facility configurations, surface circulation changes, and Underground Through Street routes to meet various project objectives and public input. This process resulted in the May 2001 Conceptual Design Study Evaluation of Alternatives – Golden Gate Park Concourse Underground Parking Facility.[2] The Authority board reviewed that study, as well as public comments. The following alternatives presented below were described in that study, but were dropped from further consideration.

Underground Parking Facility (May 2001 Alternative 4) would add one level beneath the existing paved area north of the Concourse. This alternative was considered, but rejected primarily because it would add costs, interfere with circulation in the Concourse area, and cause construction and schedule delays to the adjacent New deYoung Museum.

Underground Parking Facility alternative (May 2001 Alternative 5) would locate the underground parking in sections adjacent to the museums and in the area west of the Bandshell. Each parking facility would include two levels of parking. This alternative was also rejected due to factors of cost, construction schedules and circulation. In addition, this alternative would require excavation and replacement of the area behind the Bandshell as well as removal and replacement of trees that provide wind break protection for the Music Concourse.

May 2001 Alternative 6 would include a two-level parking facility that would wrap around the deYoung Museum and extend under Kennedy Drive, to minimize impacts on the Concourse. This alternative was considered, but rejected due to potential circulation problems, the need to relocate utilities, added construction costs as well as schedule and coordination conflicts with the New deYoung Museum, and the inconvenience of location for California Academy of Sciences visitors. In addition, this alternative would impact trees in the Japanese Tea Garden and along Kennedy Drive and require the reconstruction of the pedestrian tunnel under Kennedy Drive.

May 2001 Alternative 7 would locate the parking all on one level, on all four sides of the Music Concourse. This alternative was rejected because it would displace the pedestrian tunnels, cause cost and schedule challenges for construction, and could also cause circulation problems. In addition, this alternative would require excavation and replacement of the area west of the Bandshell as well as removal and replacement of trees that provide wind break protection for the Music Concourse.

E. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Preparation of the EIR identified the following areas of controversy or unresolved issues regarding the proposed Golden Gate Park Concourse Authority projects:

- Project effects on parking conditions in the Park and vicinity;
- Project effects on circulation conditions in the Park and vicinity; and
- Resolution of approach to vehicle and pedestrian circulation changes in the Concourse roadways.
- Project effects on historic character of the Rhododendren Dell.

NOTES — Summary

[1] It should be noted that these changes have been discussed with DPT, and their preliminary assessment has found them to be feasible.

[2] Conceptual Design Study Evaluation of Alternatives - Golden Gate Park Concourse Underground Parking Garage, May 25, 2001, prepared for the Golden Gate Park concourse Authority by Gordon H. Chong and Partners.

II. PROJECT DESCRIPTION

A. PROJECT OBJECTIVES

In 1998, voters of San Francisco approved Proposition J, the Golden Gate Park Revitalization Act, to improve the landscape and pedestrian environment of the Music Concourse area of Golden Gate Park and to construct an Underground Parking Facility in or about the Concourse area with dedicated access routes from outside the Park. The proposed project would include an Underground Parking Facility at the Music Concourse, surface improvements, and transportation improvements in the Concourse area and throughout Golden Gate Park, as described in Proposition J. Proposition J requires removal of surface parking spaces from the Concourse area, and in locations throughout the Park, equivalent to the number of spaces provided in the new Underground Parking Facility, upon completion of the Facility.

The Golden Gate Park Music Concourse projects encompass the development and implementation of improvements designated in Proposition J. Proposition J authorized and directed the creation of the Golden Gate Park Concourse Authority (GGPCA), a non-profit public benefit corporation, to enact the ordinance to "(1) create a pedestrian oasis in the Music Concourse area of Golden Gate Park, situated between the deYoung Museum and the Academy of Science (the 'Concourse') and (2) take steps to reduce the impacts of automobiles in the Park while still providing long-term assurance of safe, reliable and convenient access for visitors to the Park, including its cultural institutions."

To accomplish its objective and complete its mission, the Authority is authorized and empowered by Proposition J to complete three major elements:

1. Design, construct, and operate an Underground Parking Facility of not less than 800 spaces nor more than 1000 spaces located within or near the Music Concourse, with a dedicated entrance and exit situated outside the Park;
2. Design and implement improvements of the Concourse to enhance its natural and scenic landscape; and
3. Design and implement traffic, transit, and infrastructure plans, programs, policies, goals, and improvements relating to the Music Concourse area and the remainder of the Park necessary or appropriate to facilitate a park that is accessible to all of the public.

Proposition J states that Golden Gate Park is the cultural, recreational, and environmental heart of San Francisco and is a world-renowned resource for the residents of San Francisco and international residents alike. However, over the years, neglect, age, natural disasters and overuse have taken their toll on this great public space. Proposition J further states, "it is the policy of the People and the City and County of San Francisco to revitalize this irreplaceable resource and ensure the future of Golden Gate Park as a public treasure...."

Proposition J also states that the future of Golden Gate Park centers around a public park that is scenically beautiful, environmentally sensitive and culturally diverse. The Park includes thriving institutions, particularly the M.H. deYoung Memorial Museum (currently being reconstructed) and the California Academy of Sciences. The Park's future also includes the need to ensure that it is accessible by all forms of transportation. It is essential to the Park's future and to the City's cultural and recreational health that residents and visitors alike are able to use and enjoy the institutions and natural settings of the Park.

Section 8 of Proposition J calls for the development and completion of a feasibility study and implementation plan to include: "an intra-Park shuttle system for all attractions within Golden Gate Park; access to the Park road system from the northern side of the Park; traffic 'calming' measures to mitigate 'highway'-type traffic patterns, including, without limitation, consideration of cul-de-sacs and other roadway improvements; time-limited parking throughout the Park on weekdays to discourage non-Park commuter use; a 'cultural shuttle' carrying visitors from major downtown and transit locations to and from the Park; bicycle and skating lanes and paths within the Park; road closures within the Park in accordance with the Golden Gate Park Master Plan (adopted pursuant to Section 10 of this ordinance [Proposition J]); expanded use of the nearby hospital garages via shuttle for overflow use; Municipal Railway (MUNI) service improvements; and traffic, roadway, landscaping, and other infrastructure improvements to facilitate transition to a Golden Gate Park where the automobile is increasingly less visible." The "Transportation Implementation Plan" (TIP) to be implemented in Golden Gate Park under Proposition J in conjunction with the construction of an 800- to 1,000-space parking facility, as described below, was completed in September 2001.

Thus, in addition to the Underground Parking Facility, the GGPCA projects include the following elements:

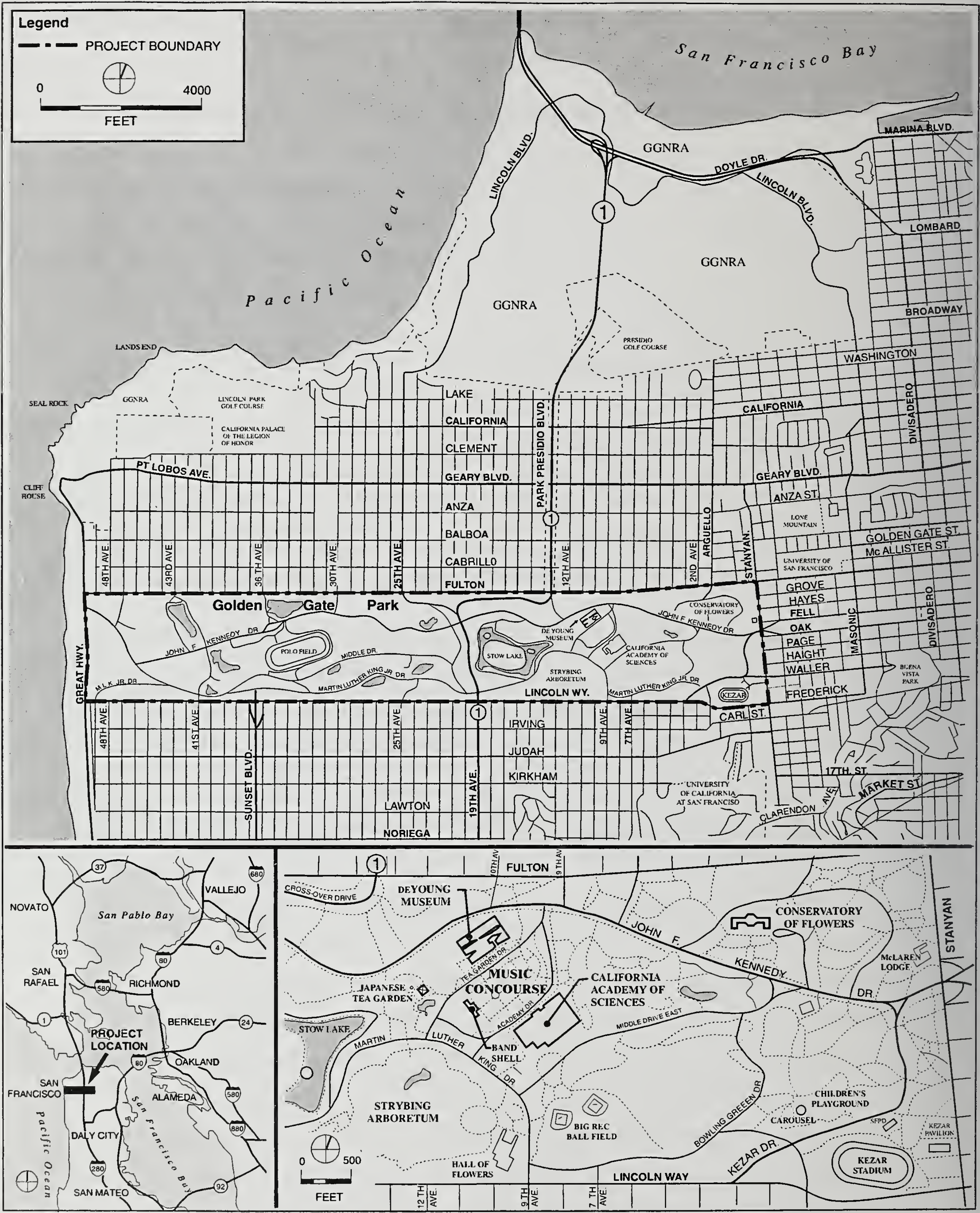
- Intra-Park Shuttle
- Cultural Shuttle
- Traffic Calming
- Parking Management
- Bicycle and Pedestrian Improvements
- Road Closures
- MUNI Service Improvements

As described below, some elements of the TIP were examined in the *Golden Gate Park Draft Master Plan EIR* and approved under the *Golden Gate Park Master Plan* and do not require further environmental review as part of the Golden Gate Park Concourse Authority Projects.[1]

As described below, the GGPCA projects include several phases or elements. Phase I would be the Underground Parking Facility and associated Concourse surface improvements; Phase II would be an Underground Through Street between Kennedy Drive near Eighth Avenue to Middle Drive East; Phase II is currently an unfunded public enhancement to the GGPCA projects. The project also includes implementation of transportation improvements called for in Section 8 of Proposition J. The EIR analyses potential impacts of the projects for each of those phases or elements, as appropriate.

B. PROJECT LOCATION

The Golden Gate Park Concourse Authority Projects would include improvements throughout Golden Gate Park. The Park is about three-and-a-half miles long and one-half mile wide and is bounded on the west by The Great Highway along Ocean Beach; on the north by Fulton Street and the Richmond District; on the east by Stanyan Street and the Haight-Ashbury District; and on the south by Lincoln Way and the Sunset District. Lot 1 of Assessor's Block 1700 includes all of the approximately 1,017-acre park (see Figure 1). Golden Gate Park is a nationally renowned recreational area that includes gardens, fields and meadows, forests,



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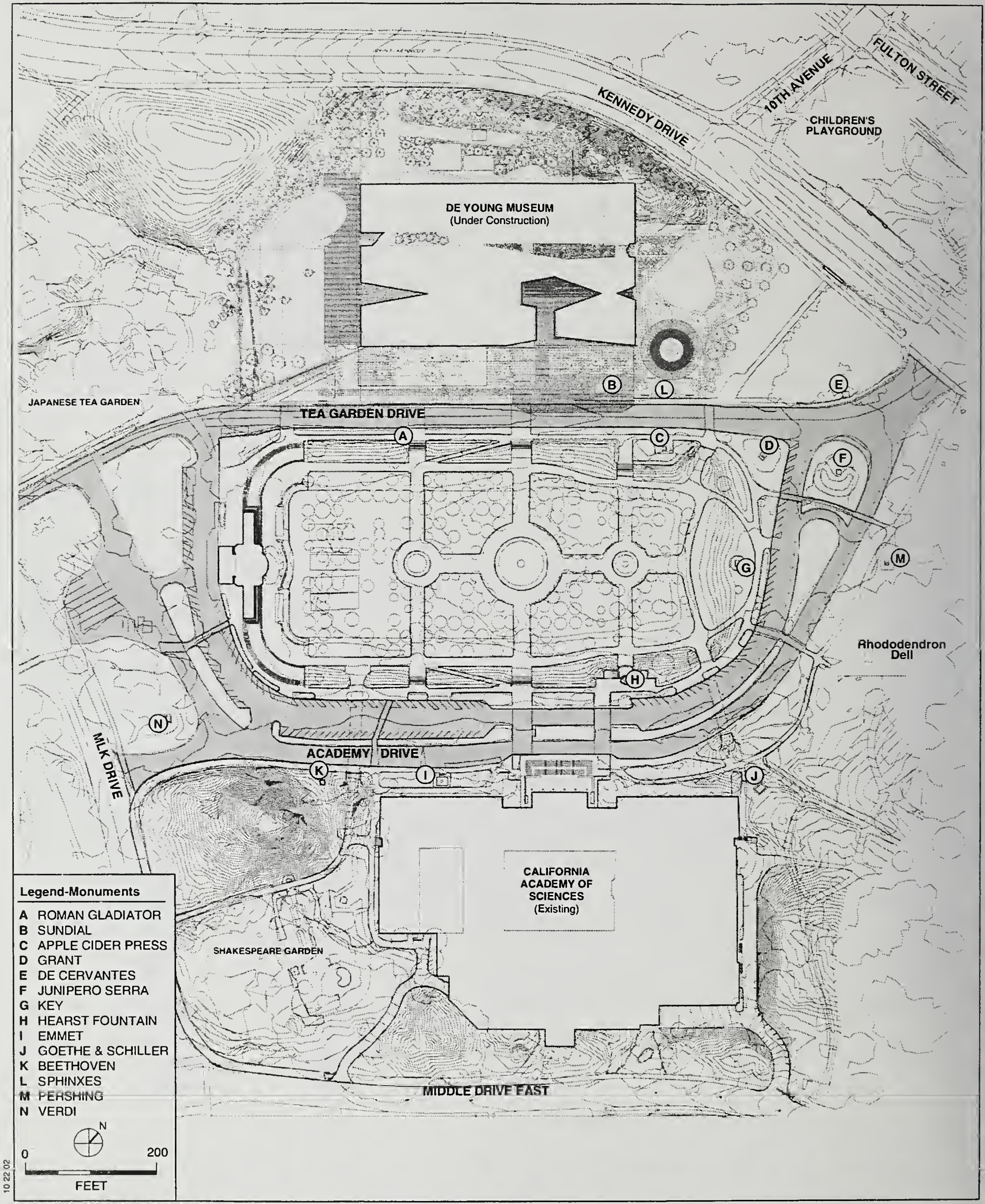
SOURCE: EIP Associates

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 1: PROJECT LOCATION

ponds and lakes, monuments and buildings, recreational facilities, nearly fifteen miles of vehicular roadways, several parking lots, and many paths and paved areas.

The Underground Parking Facility would be constructed beneath existing surface paved parking and roadway areas in the Music Concourse area of Golden Gate Park, beneath Tea Garden Drive and Academy Drive (see Figures 2 and 3). Roadways serving the Concourse area include Middle Drive East to the southeast, King Drive to the southwest, and Kennedy Drive to the north. Currently, the Concourse area includes approximately 200 surface parking spaces. The Music Concourse also includes open space characterized by regularly spaced trees, seating, paved pedestrian pathways, fountains, and other landscape features in the Concourse "bowl" (approximately 10 feet below the grade of Tea Garden Drive and Academy Drive) in a formal, symmetrical plan. (The Music Concourse is oriented in a southwest-northeast direction. However, this EIR uses a north-south, east-west convention to describe features at or near the Concourse). The New deYoung Museum (under construction) and the Hagiwara Japanese Tea Garden are immediately north and northwest of the Music Concourse, respectively. The Spreckels Temple of Music (Band Shell) is at the west end of the Music Concourse. The California Academy of Sciences is south of the Music Concourse. The Shakespeare Garden is southwest of the Academy of Sciences. Forest areas of cypress, pine and eucalyptus trees surround the Music Concourse east of the Music Concourse Bowl, northeast of the Japanese Tea Garden, north of the deYoung Museum, and west and east of the Academy of Sciences. These wooded areas and other landscape elements, such as the Rhododendron Dell and plantings behind the deYoung Museum, the Academy of Sciences and the Band Shell, seclude the Music Concourse and institutions from other areas of the Park. Three historic pedestrian tunnels, near the northeast, southeast and southwest corners of the Music Concourse Bowl, extend under the surface roadways, Tea Garden and Academy Drives, and connect to paved pathways outside the Concourse area.



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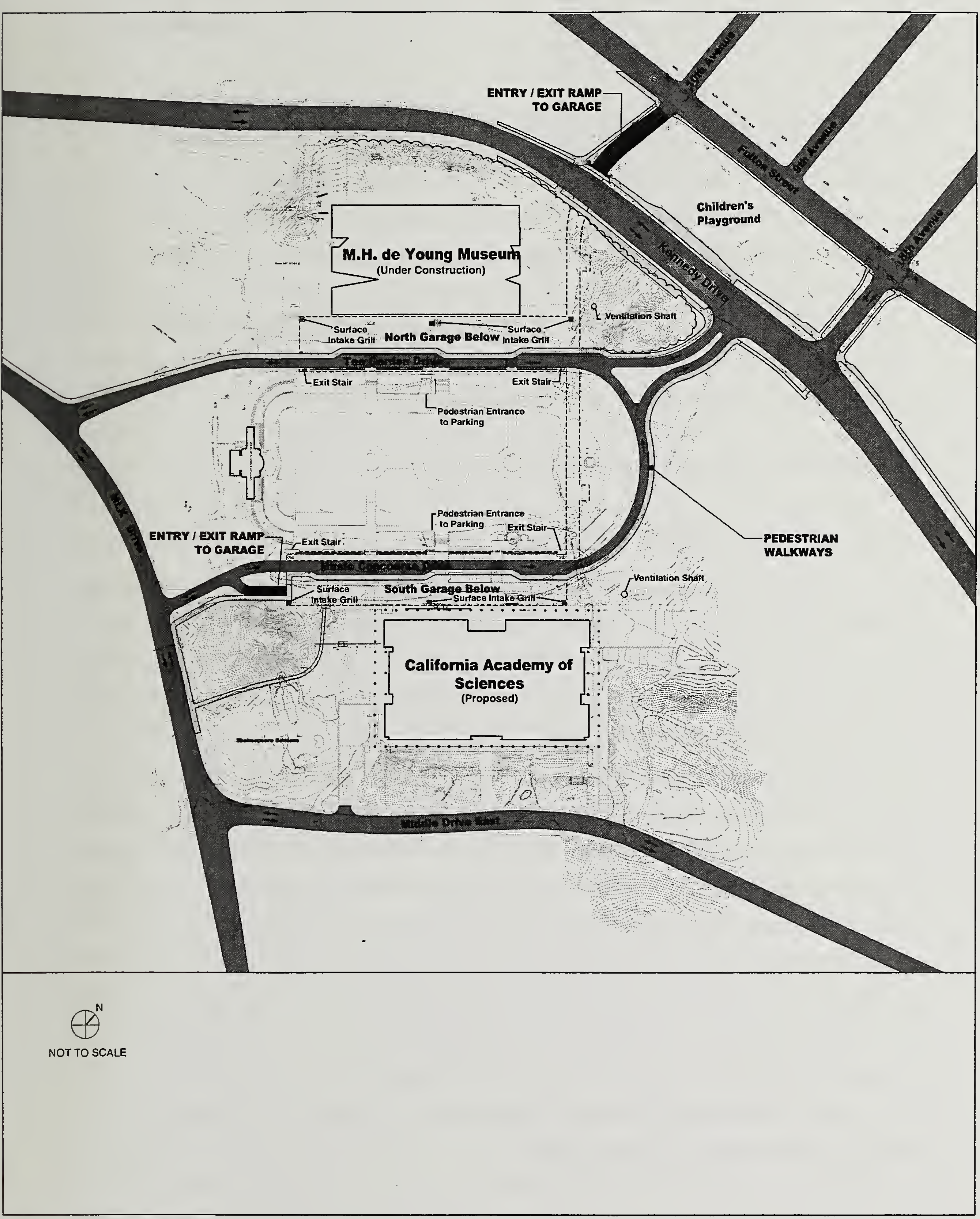
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 2: EXISTING SITE PLAN



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SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS
FIGURE 3: PROPOSED PROJECT SITE PLAN PHASE I

The Park is within a P (Public Use) zoning district, and within an OS (Open Space) Height and Bulk district. Permitted uses in a P zoning district include public structures of the City and other governmental agencies when in conformity with the San Francisco General Plan, and approvals for various aspects of the projects may be required from the Board of Supervisors, the Planning Commission, the Recreation and Park Commission and the Zoning Administrator. There are no specific height and bulk limits in the OS Height and Bulk District. Height and bulk of buildings and structures are determined in accordance with the objectives and policies of the San Francisco General Plan.

C. PROJECT CHARACTERISTICS

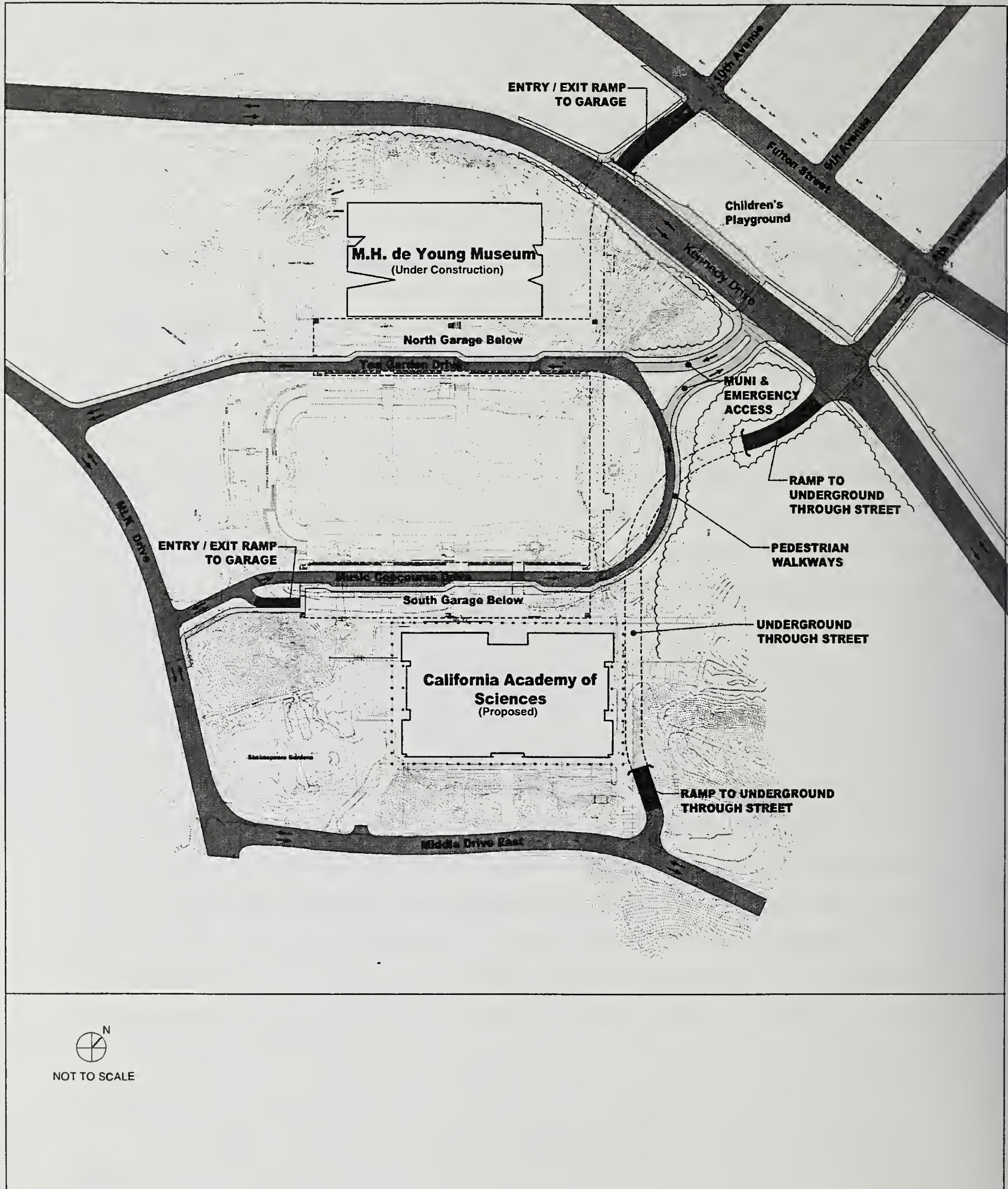
FEBRUARY 2002 SCHEMATIC PLAN

In February 2002, the Golden Gate Park Concourse Authority board approved proceeding with a Schematic Plan that included a separate underground parking area (transit center) for tour buses and school buses, which currently park behind the Spreckels Temple of Music and along Academy and Tea Garden Drives. The proposed bus parking area would be beneath the area to the east of the Concourse and would be accessible from either Tenth Avenue or Middle Drive East and would accommodate approximately 18 buses. The February 2002 Schematic Plan also included an Underground Through Street and the Middle Drive East ramp between Tenth Avenue and Middle Drive East. The Tenth Avenue ramp at Fulton Street would serve the Underground Parking Facility, the bus parking area, and the through traffic. In August 2002, this Schematic Plan was revised to comprise the project description analyzed in this EIR: The bus parking area was dropped from further consideration because of the limited number of buses that could be accommodated, and circulation constraints among buses, access to the vehicle parking, and through traffic in the underground tunnel. The February 2002 plan was also re-considered to separate parking access at Tenth Avenue and Fulton Street from potential Phase II Underground Through Street traffic, now proposed to be from Kennedy Drive at Eighth Avenue, as described below.

GGPCA planning efforts and public outreach have continued; the alternatives analyzed in this EIR reflect a range of Concourse surface access and circulation options identified in this planning process.

PHASE I - MUSIC CONCOURSE UNDERGROUND PARKING FACILITY

The Phase I Underground Parking Facility, as proposed, would accommodate about 800 cars, configured in two, two-level structures: one beneath Tea Garden Drive between the New deYoung Museum and the Music Concourse and the second beneath Academy Drive between the California Academy of Sciences and the Music Concourse (see Figures 4 and 5). The two structures would be connected by an underground vehicle tunnel at the east end of the Music Concourse Bowl. A ramp at Tenth Avenue and Fulton Street, beginning outside the Park, would provide an entrance and exit for the Underground Parking Facility. An entrance and exit would be constructed to ramp down from Academy Drive west of the Academy of Sciences. The total footprint of the parking facility would be approximately 166,000 square feet (sq. ft.). Each of the parking structures would be approximately 113 feet wide; the northern portion, near the deYoung Museum, would be approximately 602 feet long and the southern portion, near the Academy of Sciences, would be approximately 620 feet long. The northern portion would accommodate approximately 390 spaces, including about 16 ADA accessible spaces. Approximately 410 parking spaces, including about 18 ADA accessible spaces, would be in the southern portion of the parking facility. A total of 33 bicycle parking spaces would be provided on the upper levels of each portion adjacent to pedestrian access points. The project would include the reconstruction and restoration of the two easterly pedestrian tunnels and portals in their current location to meet current structural codes (see Figure 5); circulation through the pedestrian tunnel would remain independent. The parking vehicle tunnels would pass below the pedestrian tunnels (see Figure 5). The existing southwest pedestrian tunnel beneath Academy Drive would be reconstructed with restored portals, with pedestrian circulation through the upper level of the parking facility. This reconstructed tunnel would include doorways in the tunnels, to shield views and noise from the garage. A grade change between this tunnel entrance and the parking facility would include steps and ramps.

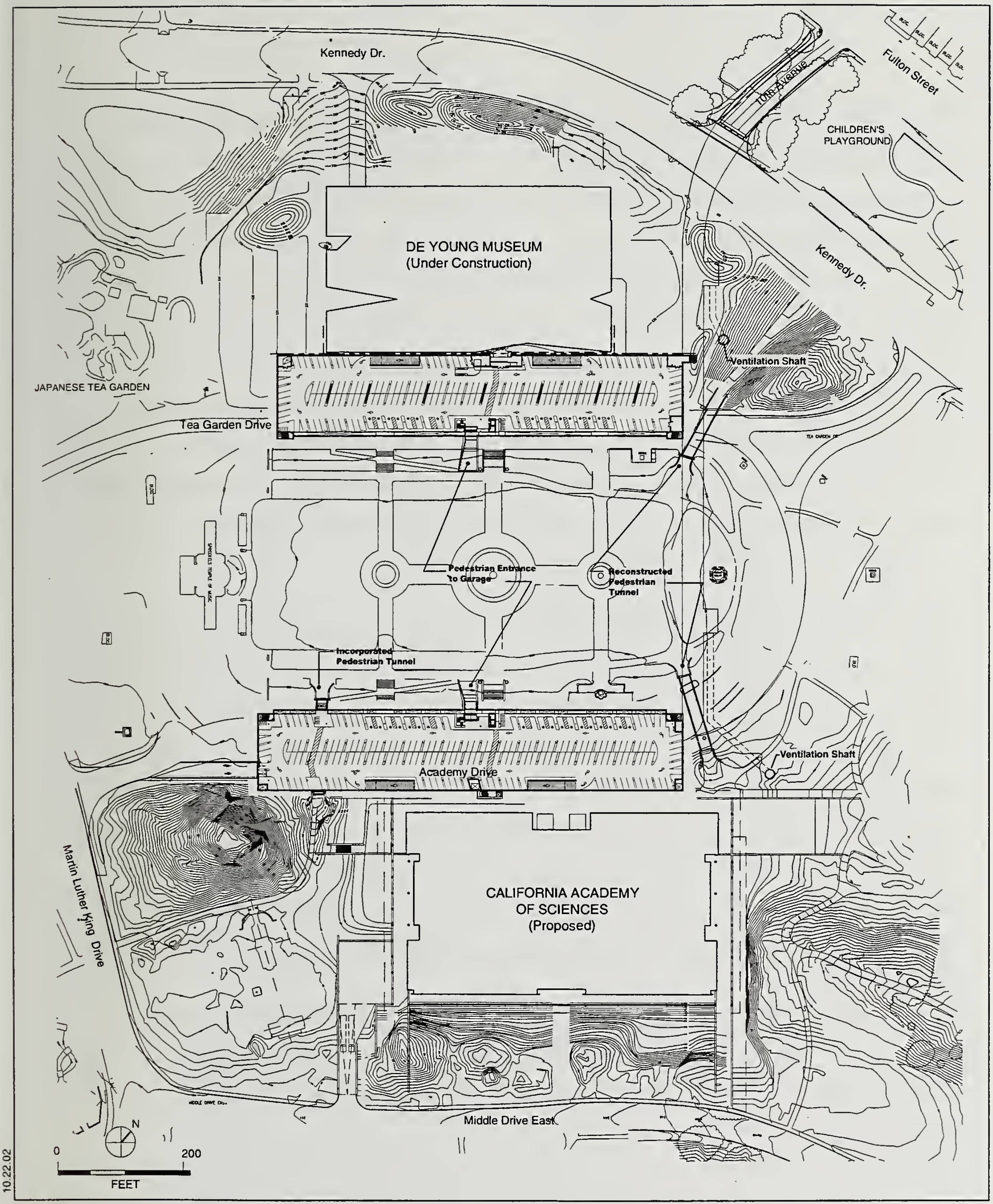


10.22.02

SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 4: PROPOSED PROJECT SITE PLAN WITH PHASE II



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SOURCE: Gordon H. Chong & Partners

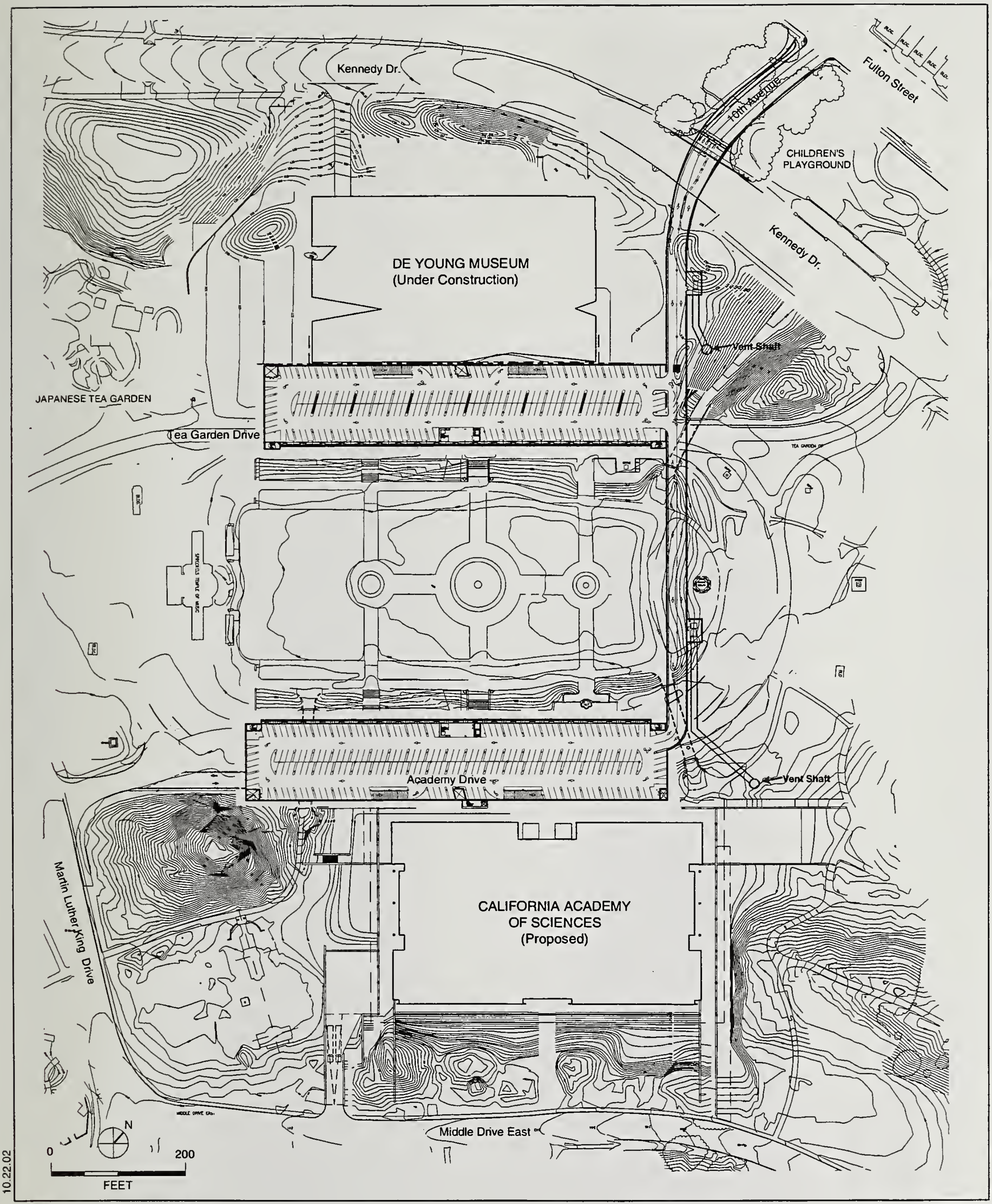
GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 5: UPPER LEVEL PARKING PLAN WITH PHASE I

The GGPCA is also considering a variant to maintain the southwest tunnel as a pedestrian route through the Underground Parking Facility. The variant would replace the pedestrian tunnel with a new walkway at the surface above the parking facility. The north tunnel portal at the Concourse Bowl would be replaced in its current location after construction of the parking facility. The portal would remain as an architectural feature in the Concourse Bowl but there would no longer be a pedestrian opening. The south portal would be removed and the existing depressed walkway that currently slopes down into the tunnel would be filled. A new walkway at the surface would be routed above the line of the existing tunnel and would connect across Academy Drive to the west end of the new pedestrian ramp leading down into the Concourse Bowl. The variant would maintain the pedestrian route from the Shakespeare Garden south of the Concourse into the Bowl. This EIR analyzes environmental effects of both approaches to changes in the southwest pedestrian tunnel.

Pedestrian circulation in the parking facility would include walkways and ramps connecting the upper parking level with the lower Concourse level or bowl (see Figures 4 through 9); those walkways would enter the Concourse Bowl from the southwest pedestrian tunnel and from two new entrances near the midpoint of the Concourse Bowl west of the existing stairways at the north and south sides of the Concourse Bowl. These entries would be provided with doors to limit views into the garage and sound from the garage. Circulation within the parking facility would include stairs and elevators connecting the lower and upper parking levels, and emergency stairways that would provide access to the upper Concourse level. New ADA accessible ramps and existing stairs would connect the Bowl to the upper Concourse level.

The proposed Underground Parking Facility would not provide parking for tour buses and school buses; buses would continue to park behind the Spreckels Temple of Music with passenger loading along Academy and Tea Garden Drives similar to current bus parking and loading operations.

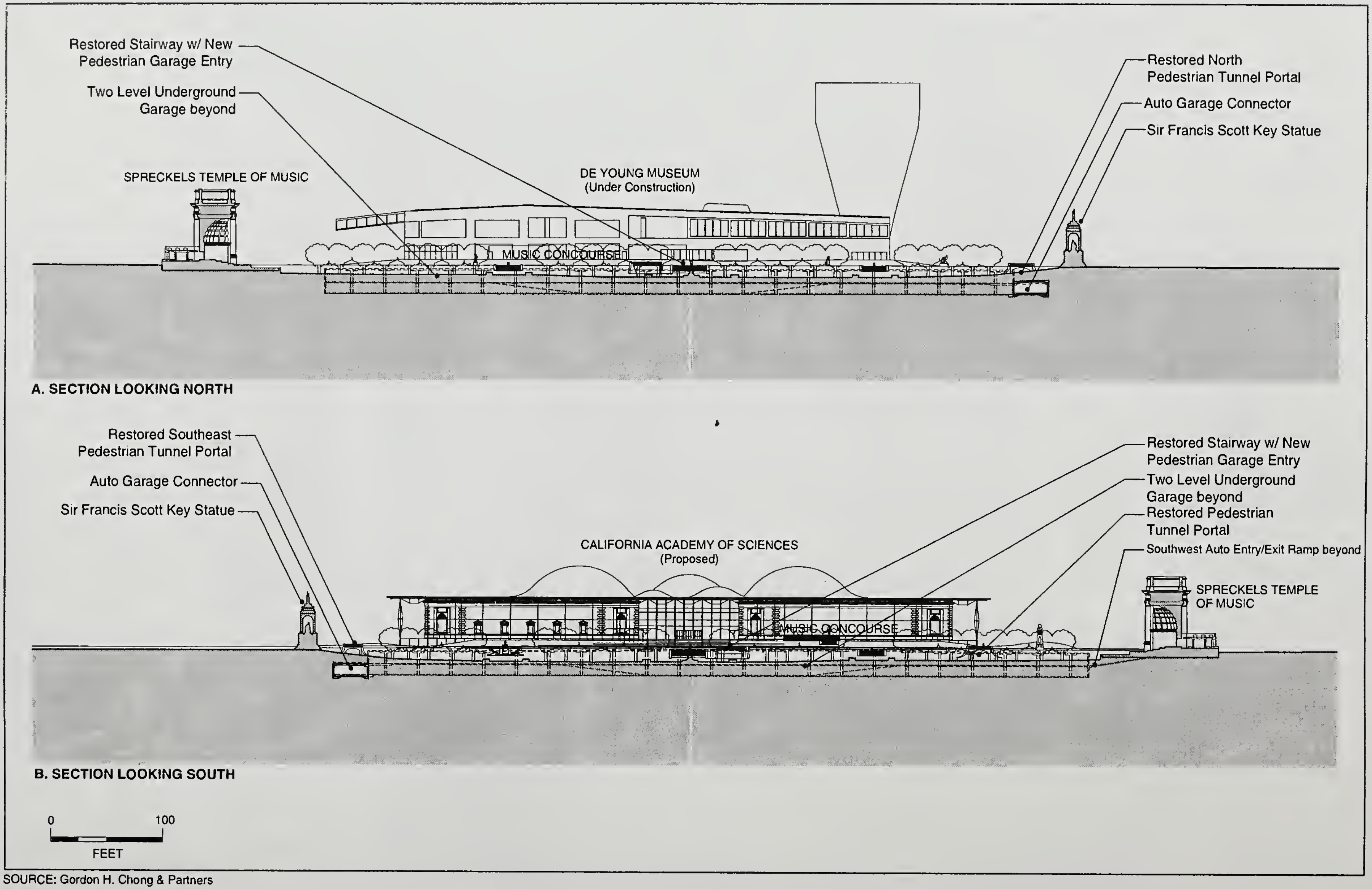


10.22.02

SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 6: LOWER LEVEL PARKING PLAN WITH PHASE I

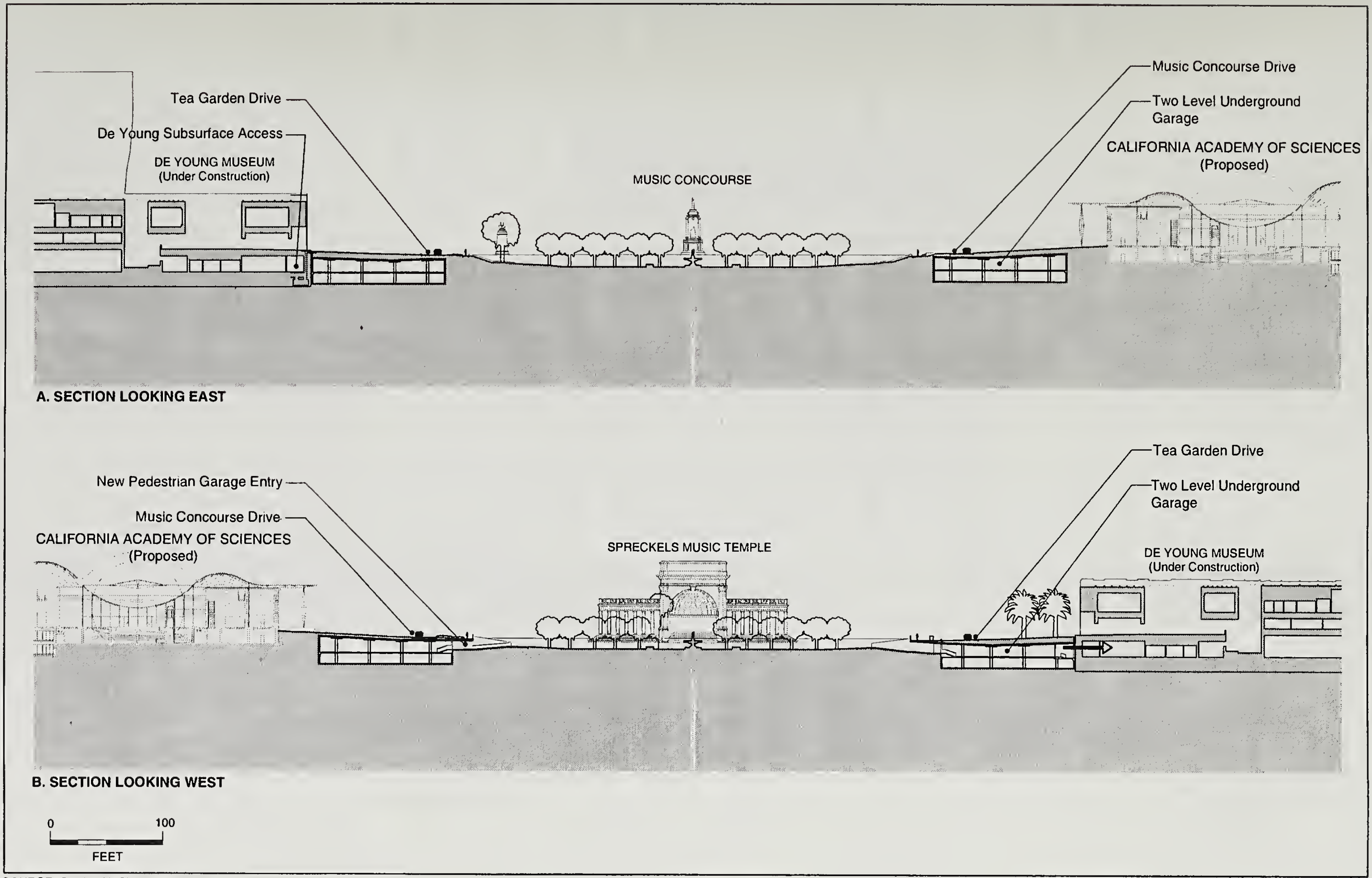

Restored Stairway w/ New Pedestrian Garage Entry
Two Level Underground Garage beyond
SPRECKELS TEMPLE OF MUSIC
DE YOUNG MUSEUM (Under Construction)
MUSIC CONCOURSE
Restored North Pedestrian Tunnel Portal
Auto Garage Connector
Sir Francis Scott Key Statue
A. SECTION LOOKING NORTH
Restored Southeast Pedestrian Tunnel Portal
Auto Garage Connector
Sir Francis Scott Key Statue
CALIFORNIA ACADEMY OF SCIENCES (Proposed)
MUSIC CONCOURSE
Restored Stairway w/ New Pedestrian Garage Entry
Two Level Underground Garage beyond
Restored Pedestrian Tunnel Portal
Southwest Auto Entry/Exit Ramp beyond
SPRECKELS TEMPLE OF MUSIC
B. SECTION LOOKING SOUTH
0
100
FEET

10.22.02

SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 7: SITE SECTIONS THROUGH CONCOURSE



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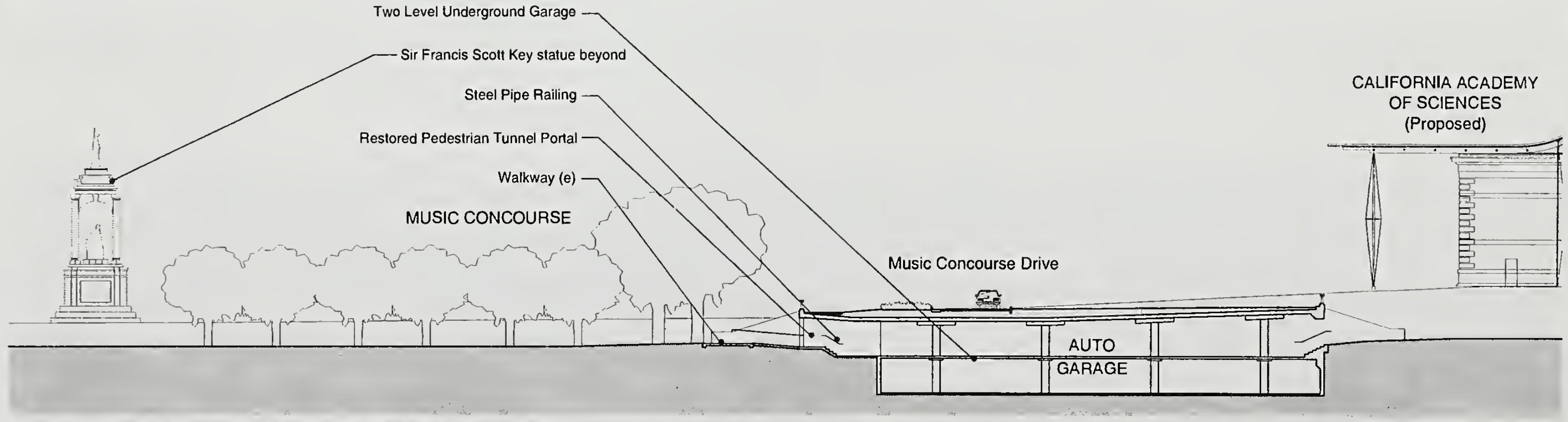
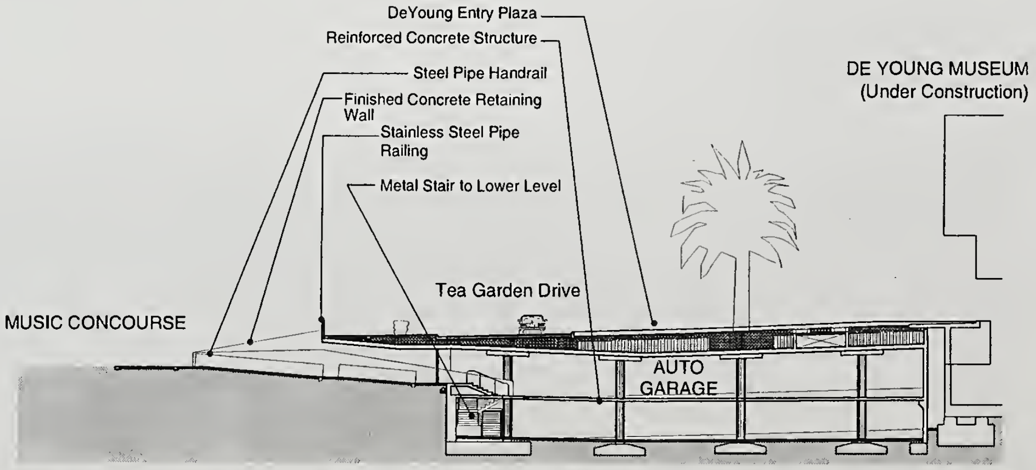
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 8: SITE SECTIONS THROUGH CONCOURSE


Two Level Underground Garage
Sir Francis Scott Key statue beyond
Steel Pipe Railing
Restored Pedestrian Tunnel Portal
Walkway (e)
MUSIC CONCOURSE
Music Concourse Drive
AUTO GARAGE
CALIFORNIA ACADEMY OF SCIENCES (Proposed)

A: SECTION OF SOUTHWEST PEDESTRIAN TUNNEL (LOOKING EAST)


DeYoung Entry Plaza
Reinforced Concrete Structure
Steel Pipe Handrail
Finished Concrete Retaining Wall
Stainless Steel Pipe Railing
Metal Stair to Lower Level
DE YOUNG MUSEUM (Under Construction)
Tea Garden Drive
MUSIC CONCOURSE
AUTO GARAGE

B. SECTION OF GARAGE ENTRANCE AT CONCOURSE LEVEL (LOOKING WEST)

10.22.02

SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 9: SECTIONS OF CONCOURSE-LEVEL GARAGE ENTRANCES

The Underground Parking Facility would include a ventilation system incorporating three street-level air intake shafts and two ventilation structures around the Music Concourse area. The ventilation structures would be up to 14 feet in diameter and approximately 10 feet high. The ventilation structures would be constructed east of the Music Concourse within the existing tree line south of the intersection of Tea Garden and Kennedy Drives, near the Pershing Monument.

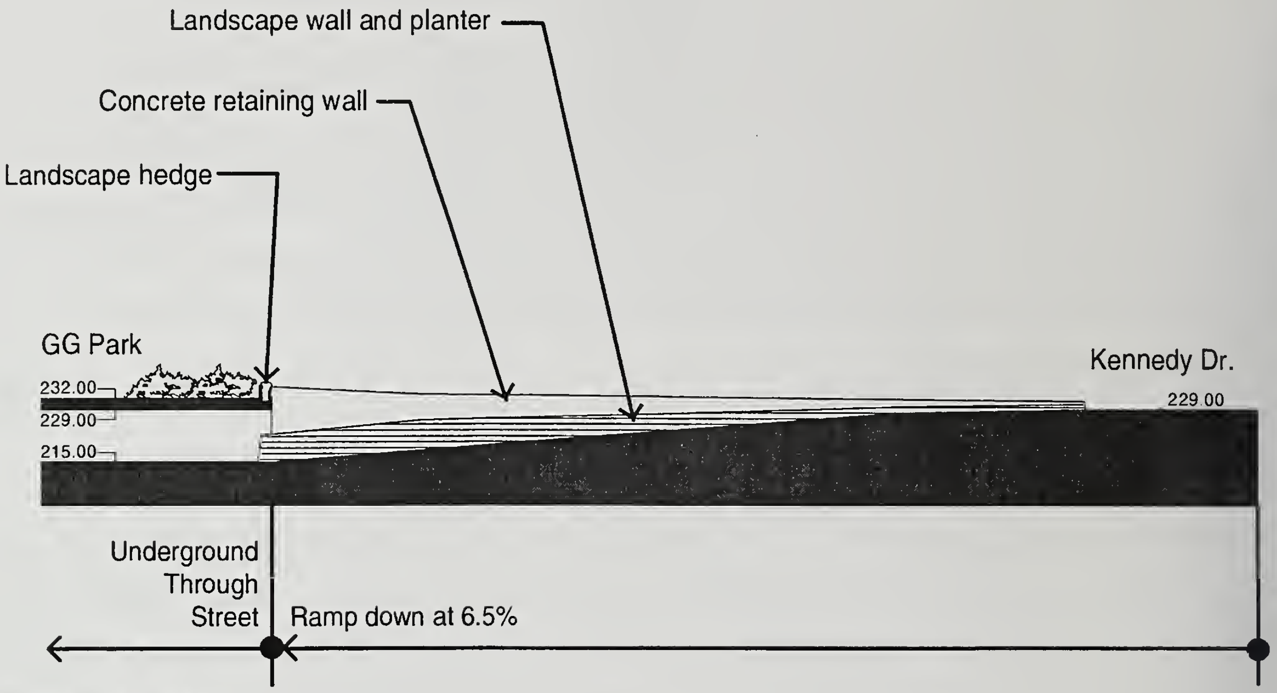
PHASE II – UNDERGROUND THROUGH STREET

With the intent to reduce traffic in the Concourse area, the Sierra Club San Francisco Group, has proposed an Underground Through Street connecting Fulton Street to Middle Drive East, which would allow for through traffic to be restricted or eliminated from Tea Garden Drive and Academy Drive. The proposed Underground Through Street would ramp down at Eighth Avenue at Kennedy Drive and would extend beneath the east end of the Concourse and alongside the east side of the California Academy of Sciences, where it would ramp up to Middle Drive East (see Figures 10 and 11). The Underground Through Street would be posted with a 15 mph speed limit. This underground street would not provide access into the parking and would be intended to reduce cross-park vehicular traffic through the Music Concourse. Phase II is currently an un-funded public enhancement to the project.

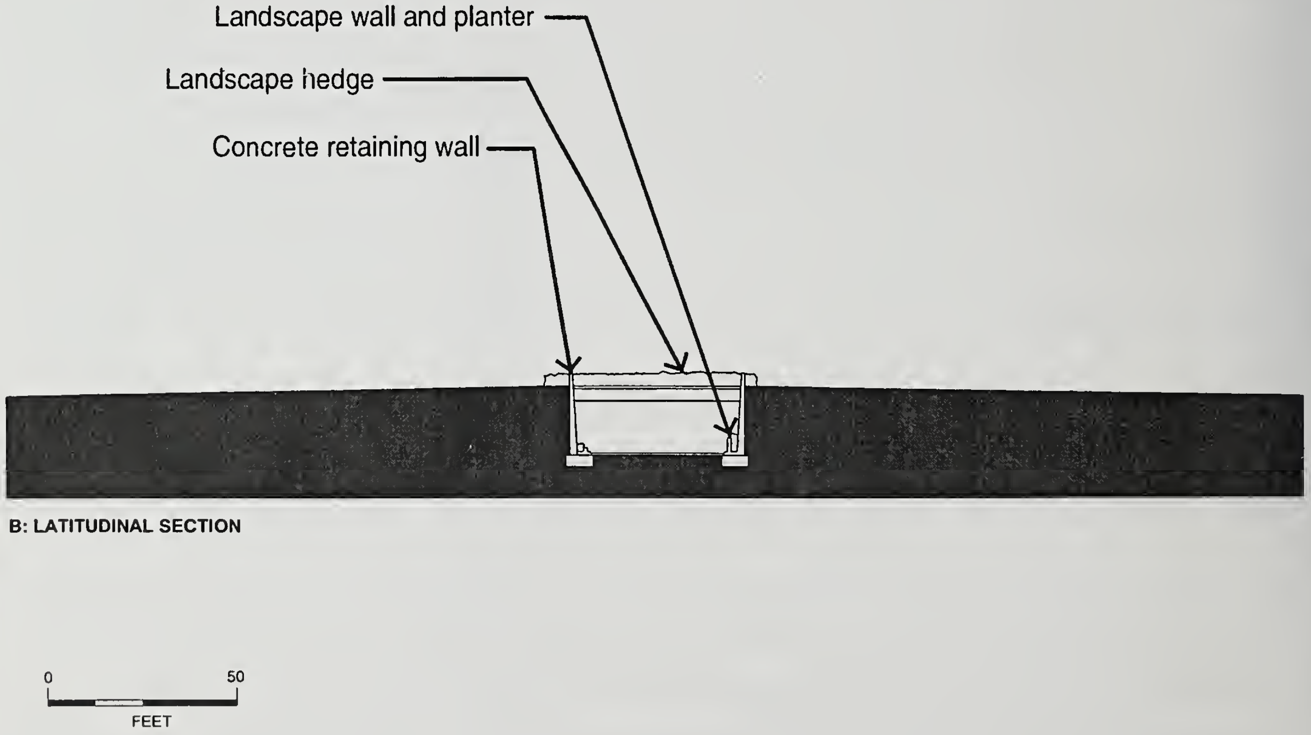
TIP ELEMENTS

Intra-Park Shuttle

The GGPCA introduced the Intra-Park Shuttle as a three-month pilot program to provide free transportation to visitors to Golden Gate Park on Saturdays, Sundays and holidays. Phase 1 of the pilot program ran from August 18 to October 28, 2001, to allow the GGPCA to evaluate the effectiveness of the program through rider surveys. Approximately 5,200 persons used the shuttle during Phase 1 of the pilot program. The information gathered from the surveys was integrated into a final recommendation presented to the City at the end of the 2001 pilot program, on November 7, 2001, with recommendations for the 2002 pilot program.



A: LONGITUDINAL SECTION

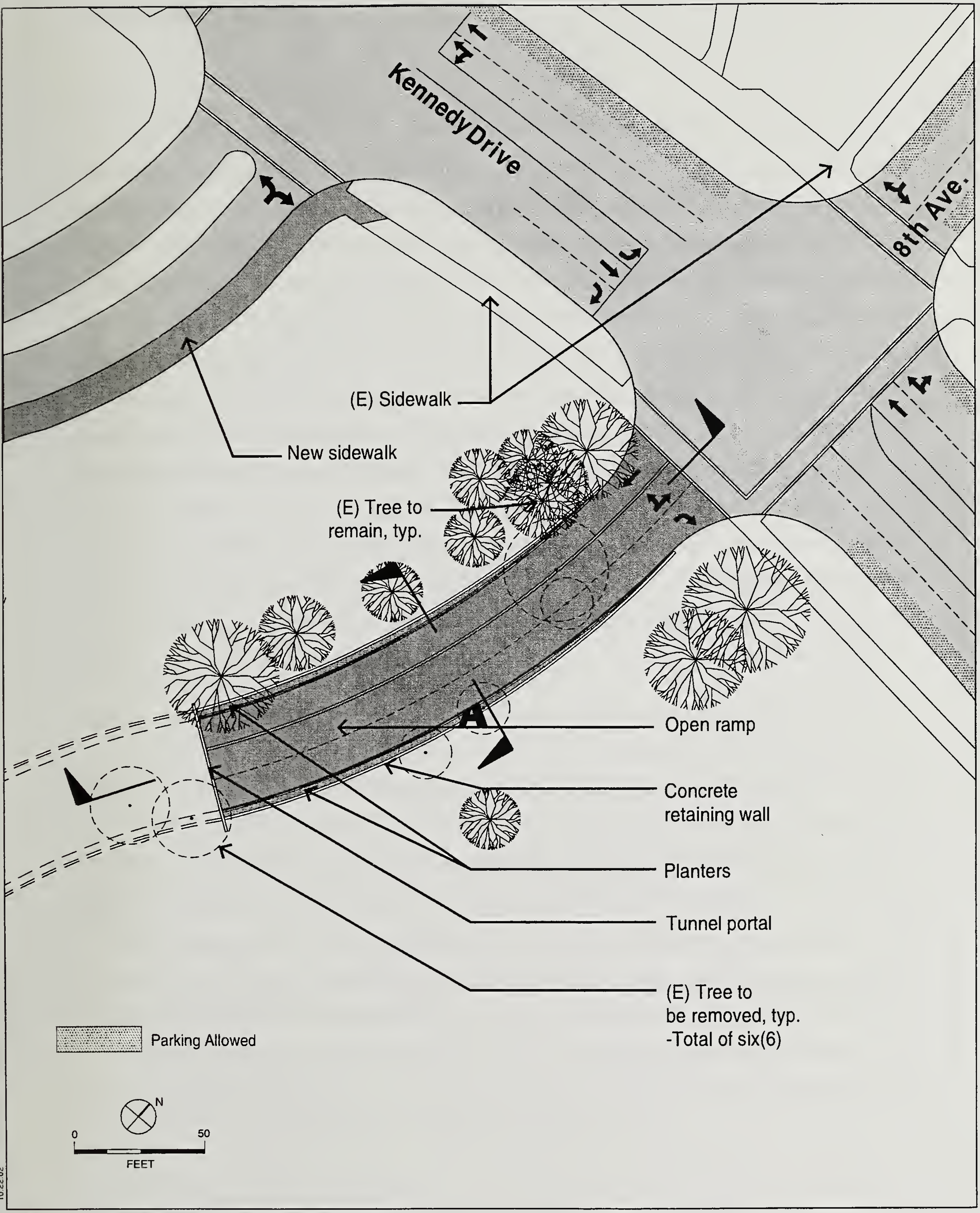


B: LATITUDINAL SECTION

10.22.02

SOURCE: Gordon H. Chong & Partners

FIGURE 10: SECTION OF UNDERGROUND THROUGH STREET WITH PHASE II



SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 11: PROPOSED THROUGH STREET AT KENNEDY DRIVE WITH PHASE II

Phase 1 of the Intra-Park Shuttle service used small buses with the capacity to carry up to approximately 30 passengers in August and September of 2001 and used motorized cable car vehicles, which were easily distinguishable from tour buses, in October 2001. The shuttle was operated at 20-minute intervals on weekends and holidays from 10:00 am to 6:00 pm and was free of charge to passengers. The Intra-Park Shuttle served 21 stop locations including Sharon Meadow, the Conservatory of Flowers, the California Academy of Sciences, the Japanese Tea Garden, Stow Lake, the Rose Garden, the Beach Chalet, and the Strybing Arboretum. The Intra-Park Shuttle route served MUNI connections on Lincoln Way, between Fourth and Fifth Avenues. Shuttle service also included connections to the UCSF Garage at Second Avenue and Irving Street (to connect with the N-Judah lines); at 19th Avenue and Lincoln Way (to connect with the 16X-Noriega, 28-19th Avenue, 29-Sunset, and 71-Haight/Noriega); at 36th Avenue and Fulton Street (to connect with the 5-Fulton); at 48th Avenue and Lincoln Way (to connect with the N-Judah and the 18-46th Avenue); and at Ninth Avenue and Lincoln Way (to connect to the 16X-Noriega, 44-O'Shaughnessy, and the 71-Haight/Noriega).

The 2002 pilot program (Phase 2), which operated from May through October 2002, was intended to increase ridership and visibility and to identify further service improvements. Phase 2 served the 21 stop locations (and MUNI connections) with ADA accessible mid-sized buses and extended the route to Stanyan Street near Haight Street to connect with the 6-Parnassus, 33-Stanyan, 43-Masonic, and 71-Haight/Noriega MUNI bus lines. The 2002 pilot program carried an average of 50 passengers per day and 1,045 on peak days. The Intra-Park Shuttle is part of the GGPCA projects and was addressed but was not analyzed in the *Golden Gate Park Master Plan*. As a pilot program, the 2001-2002 Intra-Park Shuttle was found to be exempt from environmental review under the California Environmental Quality Act (CEQA). The GGPCA is proposing a permanent shuttle as part of the Transportation Implementation Program; effects of a permanent shuttle are addressed in this EIR.

Cultural Shuttle

Based on the determination of a feasibility study and the TIP, the proposed Cultural Shuttle route would operate two-way at 15-minute intervals on weekends and holidays and would provide connections to Golden Gate Park from the following potential transit hubs: Caltrain, Ferry Building, BART/16th Street Station, F-Line at Market, Transbay Terminal, and N-Judah at Ninth. Other potential connecting points include The Presidio, Marin Green, Golden Gate Bridge, Fisherman's Wharf, North Beach, Chinatown, Market Street, Embarcadero, and PacBell Park. The shuttle would use zero-emission vehicles with approximately 20- to 35-passenger capacity. Preliminary routes, stops, and operating/maintenance planning is currently underway. The Cultural Shuttle is part of the GGPCA Projects and was not analyzed in the *Golden Gate Park Master Plan*. GGPCA studies for the Cultural Shuttle are at preliminary stages, and no operational plans are yet proposed. Therefore, this EIR does not analyze potential Cultural Shuttle operations and its effects on transportation conditions in the Park. Implementation of the Cultural Shuttle could require further environmental review in the future.

Traffic Calming

Conceptual designs for traffic calming as part of the Proposition J projects are being developed for narrowed travel lanes and shared-use roadways in Golden Gate Park. The plan would also incorporate improvements identified in the *Golden Gate Park Master Plan*. Proposed traffic calming measures under Proposition J and analyzed in this EIR would include:

- Re-striping of King Drive to enhance visibility at crosswalks and bicycle lanes.
- Traffic calming on Academy Drive in conjunction with Music Concourse area surface improvements (to be developed).
- Traffic calming on Middle Drive East in conjunction with the Concourse Parking Facility, as needed.
- Installation of changeable speed signs along Kennedy Drive.

Traffic calming measures identified in the *Golden Gate Park Master Plan* and analyzed in the *Golden Gate Park Master Plan EIR* require no further environmental review herein and will be implemented as part of that plan include:

- Kennedy Drive/Stanyan Street/Kezar Drive entry improvements/traffic calming.
- Landscape Extensions on eastern Kennedy Drive.
- Tea Garden Drive narrowing and landscaping improvements.
- Intersection paving reductions at the following locations: Stow Lake Drive at Kennedy Drive; Haight Street at Stanyan Street; King Drive and the Great Highway.
- Stanyan Street/Fulton Street intersection improvements.
- Conversion of 30th Avenue to a one-way entrance into the Park from Fulton Street.

Parking Management

The Golden Gate Park Master Plan encourages pedestrian access, provides incentives for visitors to the Park and discourages commuter parking by identifying areas for time-limited parking. The GGPCA Projects would implement improvements identified and evaluated in the *Golden Gate Park Master Plan*, including time-limited parking and other parking removal. Parking management measures that would be part of the GGPCA Projects and analyzed in this EIR would include:

- Elimination of 800 surface parking spaces in Golden Gate Park including about 200 spaces in the Music Concourse area, as required by Proposition J.

Parking Management measures identified in the *Golden Gate Park Master Plan* and analyzed in the *Golden Gate Park Master Plan EIR* that will be implemented as part of the GGPCA Projects include:

- Establishing three- to four-hour parking time limits in the East Park on Conservatory Drive, Bowling Green Drive, Kezar Drive, and portions of Kennedy Drive and King Drive. This measure has been approved by the Recreation and Park Commission, and will be implemented in 2002-2003.
- Parking removal in association with other measures; e.g., road closures and traffic calming. Approximately 100 on-street spaces would be removed at the following locations: Middle Drive West - approximately 40 spaces; Waller Street - approximately

40 spaces; Seventh Avenue - approximately 15 spaces; and 47th Avenue - approximately 5 spaces.

Those two measures require no further environmental review herein.

Bicycle/Pedestrian Improvements

The *Golden Gate Park Master Plan* and the San Francisco Bicycle Plan (1997) provide implementation recommendations for bicycle and skating routes, lanes, paths and trails within Golden Gate Park. The conceptual design is being developed for a dedicated bike lane along Kennedy Drive and improvements to existing paths. The GGPCA would work with the Recreation and Park Department to make pedestrian safety improvements. The GGPCA has retained the San Francisco Bicycle Coalition to provide public outreach services to develop a list of potential bicycle improvement actions for implementation in the Park. Bicycle, skating and pedestrian improvement measures considered under Proposition J and analyzed in this EIR include:

- Installation of new fluorescent-paint pedestrian crossing signs and ladder markings at approximately 100 crosswalks, to improve pedestrian safety throughout the Park.
- Elimination of vehicle parking on selected Park roadways, to be determined, to provide more right-of-way for bicycles.

Bicycle/Pedestrian Improvements identified in the *Golden Gate Park Master Plan* and analyzed in the *Golden Gate Park Master Plan EIR* require no further environmental review herein and will be implemented as part of the Golden Gate Park Concourse Authority Projects:

- Provision for bicycle parking at all major attractions.
- Multi-Use Path Improvements - along the Great Highway, in the central western portion of the Park, and along Kezar Drive.

Road Closures

In accordance with the *Golden Gate Park Master Plan*, the Recreation and Park Department will identify and implement road closures in Golden Gate Park. The Golden Gate Park Concourse Authority (GGPCA) will work with the Department of Recreation and Parks on the design of the road closures. The GGPCA projects do not include any additional road closures. Road closures identified in the *Golden Gate Park Master Plan* and analyzed in the *Golden Gate Park Master Plan EIR* require no further environmental review and will be implemented in coordination with the GGPCA projects:

- Arguello Boulevard - northern segment of block between Kezar Drive and Lincoln Way.
- Conservatory Drive East - between Arguello Boulevard and Kennedy Drive.
- Middle Drive West - middle segment between King Drive and Transverse Drive (implemented).
- Music Concourse Roadway - segment behind the Band Shell.
- South Fork Drive - between Kennedy Drive and King Drive.
- Waller Street - between Kezar Drive and Stanyan Street.
- Seventh Avenue entry - between King Drive and Lincoln Way.
- 47th Avenue - segment just north of Kennedy Drive near the Golden Gate Park Golf Course.

MUNI Service Improvements

The Golden Gate Park Concourse Authority (GGPCA) is working cooperatively with the San Francisco Municipal Railway (MUNI) to enhance and market transit routes to Golden Gate Park.

- The GGPCA has recently worked with MUNI to provide new destination signage on the 44-O'Shaughnessy bus line to identify Golden Gate Park as a destination on this route. This measure has been implemented.

OTHER CONCOURSE AREA PROJECTS

The approved New deYoung Museum project and the proposed California Academy of Sciences project are not part of Proposition J, and are proceeding independently of the GGPCA Projects. However, coordination among the GGPCA, the deYoung Museum, the Academy of Sciences, the Strybing Arboretum, the Recreation and Parks Department, and other trustee and responsible agencies is being undertaken and would occur during the implementation of the Proposition J Projects to meet the goals and charge of the GGPCA and the Golden Gate Park Master Plan. This EIR includes cumulative effects of these other projects as appropriate, in the analysis of the GGPCA projects.

The San Francisco Board of Supervisors is proposing legislation to implement additional road closures within Golden Gate Park on Saturdays. The Saturday road closure would include the following streets in the Park: Kennedy Drive between Kezar Drive and Eighth Avenue, Arguello Boulevard between Fulton Street and Conservatory Drive, Conservatory Drive East and West, and Bowling Green Drive between Kennedy Drive and Middle East Drive (Figure 1 and Figure 2). No other changes to the roadway network are proposed. The purpose of the road closure is to provide a recreational area for bicycling, rollerblading, skating, walking and other activities on Saturdays, similar to existing conditions on Sundays in the Park. A Negative Declaration was published on November 30, 2002 for this project that found no significant impacts as a result of the project and is currently in public review.

D. PROJECT SCHEDULE

The proposed Underground Parking Facility would be completed to coordinate with construction schedules for the adjacent institutions, the New deYoung Museum and the California Academy of Sciences. Currently, the New deYoung Museum is scheduled to open in mid-2005. Renovation of the Academy of Sciences is expected to be completed in late 2007 in order to re-open in Spring 2008. The proposed Underground Parking Facility would be constructed in one phase with scheduled completion prior to the opening of the New deYoung Museum. Once construction of the Parking Facility begins, the Concourse roadways, Tea Garden and Academy Drives, would be closed to through traffic for the duration of construction. The Underground Through Street, which is currently an un-funded public traffic enhancements, is not likely to be constructed until after completion of the Underground Parking Facility; all other Concourse area construction would be completed by 2007. For key EIR topics, the EIR presents impacts by phase or element.

Many of the TIP elements are would not be implemented until a later date. The Intra-Park Shuttle completed its first pilot season and the second pilot season began in May 2002 and on weekends and holidays through October 2002. Parking management measures began in April 2002, traffic calming measures are anticipated to occur from summer 2002 to spring 2003, and bicycle and pedestrian improvements, as well as road closures, are anticipated to occur in summer 2003. Transit improvements, which will provide future service to Golden Gate Park, are being developed independently by MUNI. The start date for the Cultural Shuttle is to be determined; preliminary design of routes, stops, and operating/maintenance plans for this service are currently underway. The schedule for implementation may require further environmental review, as discussed above.

E. PROJECT APPROVALS

Proposition J confers administrative jurisdiction over the Underground Parking Facility on the Golden Gate Park Concourse Authority (GGPCA) subject to the power of the Recreation and Park Commission by a vote of two-thirds of its members to reject certain actions taken by the GGPCA. Proposition J makes the GGPCA responsible for the design, construction and operation of the parking facility. Proposition J authorizes the GGPCA to enter into one or more contracts and leases in order to carry out these duties. Section 9.118 of the City Charter requires the Board of Supervisors to approve certain contracts and leases by resolution. The Charter also requires the Board to approve the parking fee schedule for the parking facility by ordinance. Proposition J requires that the Underground Parking Facility be constructed entirely with private funds. Initially, the GGPCA proposes to enter into a memorandum of understanding (MOU) with the Music Concourse Community Partnership (MCCP), a California non-profit public benefit corporation, pursuant to which MCCP will manage the design, construction and operation phases of the Underground Parking Facility, subject to GGPCA approval and oversight.

The GGPCA and MCCP anticipate that the City, acting by and through the GGPCA, would enter into a construction agreement, a financing and lease agreement, and any other necessary agreements with MCCP, consistent with the MOU, that would allow and govern the construction of the Underground Parking Facility, and establish and govern the on-going relationship between the GGPCA and MCCP regarding the financing, construction and operation of the parking facility.

The following specific actions are anticipated to be necessary to approve and implement the projects.

City Planning Commission:

- Certifies the Final EIR.
- Adopts CEQA findings and mitigation monitoring program.
- Determines consistency with General Plan and Planning Code Section 101.1 priority policies, and recommends approval of the project and related agreements to the GGPCA and the Board of Supervisors.

Golden Gate Park Concourse Authority:

- Reviews and considers Final EIR and adopts mitigation measures for which it is responsible under the mitigation monitoring program.
- Makes recommendations to the Recreation and Park Commission concerning Golden Gate Park Master Plan, and the Music Concourse Special Area Plan.
- Enters into MOU (on behalf of the City) with MCCP regarding the design, financing, construction and operation of the Underground Parking Facility.
- Approves the final design of the project.

Recreation and Park Commission:

- Reviews and considers Final EIR and adopts mitigation measures for which it is responsible under the mitigation monitoring program.
- Amends Golden Gate Park Master Plan and Music Concourse Special Area Plan to the extent necessary to conform to Proposition J and the adopted GGPCA plans.
- Oversees the actions of the GGPCA in accordance with the provisions of Proposition J, including review of proposed parking fee schedule.

Board of Supervisors:

- Reviews and considers Final EIR and adopts mitigation measures for which it is responsible under the mitigation monitoring program.

- Makes findings of consistency with General Plan, Golden Gate Park Master Plan, Music Concourse Special Area Plan and Planning Code Section 101.1 priority policies.
- Adopts resolution approving agreements between the City and MCCP regarding the design, financing, construction, and operation of the Underground Parking Facility, as required by Proposition J and Charter Section 9.118.
- Adopts ordinance approving parking fee schedule for the Underground Parking Facility.

Department of Building Inspection:

- Issues demolition, site, building, and fire safety permits.

Fire Department:

- Issues permit to operate the Underground Parking Facility.

Department of Parking and Traffic:

- Reviews and considers reconfiguration of streets and intersections and installation of signals under its jurisdiction.

Department of Public Works:

- Issues permits for any encroachments on public rights-of-way and issues permits for and accepts any improvements to streets under its jurisdiction.

NOTES – Project Description

[1] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report,* Case No. 95.243E, certified July 9, 1998.

III. ENVIRONMENTAL SETTING AND IMPACTS

A. LAND USE, PLANS, AND ZONING

An application for environmental evaluation for the project was filed September 14, 2001, and supplemented with additional schematic design information in February 2002. On the basis of an Initial Study published on May 18, 2002, the San Francisco Planning Department determined that an EIR was required. The Initial Study determined that the following effects of the project would either be insignificant or would be reduced to a less than significant level by mitigation measures included in the project and thus required no further analysis: light and glare; population, employment and housing; utilities and public services; biology; geology and topography; water; energy and natural resources; hazards; and archaeological resources. Therefore, the EIR does not discuss these issues (see Appendix A, p. A.1, for the Initial Study). The Initial Study also found that the land use changes would not cause potential significant environmental effects and required no further analysis, but noted that this topic would be included in the EIR for informational purposes and to orient the reader.

EXISTING LAND USES AND ZONING

Golden Gate Park is approximately 1,017 acres in the northwestern part of San Francisco and comprises Lot 1 of Assessor's Block 1700 (see Figure 1, Project Location, p. 4). The City and County of San Francisco owns the lands in Golden Gate Park. The main body of the Park area is about three-and-a-half miles long and one-half mile wide and is bounded on the west by The Great Highway along Ocean Beach; on the north by Fulton Street and the Richmond District; on the east by Stanyan Street and the Haight-Ashbury District; and on the south by Lincoln Way and the Sunset District. Extending eastward approximately three-quarters of a mile from the main body of the Park is the block-wide strip known as the Panhandle, which is bounded on the west by Stanyan Street; on the north by Fell Street and the northern Haight-Ashbury neighborhood; on the east by Baker Street; and on the south by Oak Street and the Haight-Ashbury District. Golden Gate Park is a nationally renowned and locally significant recreational and visual resource. The Park includes gardens, fields, forests, ponds, lakes, monuments and buildings, cultural institutions, nearly fifteen miles of vehicular roadways, several parking lots, and many paths and paved areas. The *Golden Gate Park Master Plan* (discussed below) has divided the Park into nine land use zones: Naturalistic Parkland, Major Meadows and Lawns, Major Recreational Areas, Indigenous Oak Preserves, Special Horticultural Areas, Strybing Arboretum and Botanical Gardens, Music Concourse area, Maintenance/Operations Areas, and Vehicle Circulation and Parking. [1]

Existing building area in Golden Gate Park totals approximately 363,000 square feet, excluding the New deYoung Museum, which is under construction, and the California Academy of Sciences. Together, the museum buildings in the Park cover about 293,000 square feet, for a total Park and non-Park building area of approximately 656,000 square feet.[2]

Most of Golden Gate Park's permanent structures are in the area east of Cross Over Drive, including the Conservatory of Flowers; Recreation and Park Department offices (including McLaren Lodge); the Music Concourse and Spreckels Temple of Music (with the institutions noted above); the Japanese Tea Garden; the tennis courts and clubhouse; lawn bowling greens and clubhouse; Strybing Arboretum and Botanical Gardens; the Sharon Building, carousel, and Children's Playground; Kezar Stadium and Pavilion; the Park Police and Emergency Aid Stations; the handball courts; Stow Lake Boat House; the Pioneer Log Cabin; and the Park maintenance yard and nursery. Temporary storage facilities (dumpsters) and a mobile office are part of the Haight-Ashbury Neighborhood Recycling Center. Landscaping in the eastern portion of the Park is designed with meadows, dells, flower gardens, groves, and two waterfalls (Rainbow and Huntington). Stands of trees in this area include native oaks, mixed conifers, redwoods, pines, eucalyptus and other broadleaf evergreens. Lakes in the eastern portion of the Park include Alvord, Stow, and Quarry (Lily Pond) Lakes.[3]

The western portion of the Park contains most of its larger meadows, lakes, and relatively naturalistic areas, as well as facilities for activities and sports such as fly casting, model yachts, horseback riding, archery, golf, rugby, soccer, and track. Lakes in the area include Spreckels, Lloyd, Mallard, Metson, Elk Glen Lakes, and the Chain of Lakes (North, Middle, and South Lakes). Other features and facilities in the western portion of the Park include the compost area, the Urban Forestry Center, the Senior Center, the Bison Paddock, the Beach

Chalet, and the Dutch and Murphy windmills. The western edge of the Park is enclosed with dense vegetation that blocks views of the ocean from within the Park and views of open spaces from outside the Park.

The Music Concourse area, an area characterized by a concentration of museum, educational, recreational, and other open space uses, is in the eastern part of the Park and is roughly bounded by Middle Drive East to the south, Martin Luther King, Jr. Drive (King Drive) to the west, and John F. Kennedy Drive (Kennedy Drive) to the north. The Music Concourse area has supported museum, educational and recreational uses since its development for the San Francisco Mid-Winter International Exposition in 1894. The Music Concourse is a formal open space characterized by regularly spaced trees, seating and other landscape features in the Concourse Bowl (approximately 10 feet below the grade of Tea Garden Drive and Academy Drive) in a formal, symmetrical plan, bordered by Tea Garden Drive and Academy Drive. Three pedestrian tunnels dating from the Mid-Winter fair in 1894 are at the northeast, southeast, and southwest edges of the Music Concourse. (Section III.C, Historic Resources, describes historic development of the Music Concourse in more detail.)

The Music Concourse area includes the New deYoung Museum and the Hagiwara Japanese Tea Garden immediately north and northwest of the Music Concourse, respectively. Currently, the M.H. deYoung Memorial Museum is closed while the New deYoung Museum is under construction. The California Academy of Sciences (proposed for renovation and re-construction), including the Steinhart Aquarium and the Morrison Planetarium, is to the south of the Music Concourse. In March 2000, voters approved Proposition B, approving bond financing to support renovation of the California Academy of Sciences. Plans for the California Academy of Sciences project are being drafted, and that project will proceed independently of the Golden Gate Park Concourse Authority Projects. The Band Shell, or Spreckels Temple of Music, is at the west end of the Music Concourse. The Shakespeare Garden is southwest of the California Academy of Sciences. Forest areas of cypress, pine and eucalyptus trees surround the Music Concourse east of the Music Concourse Bowl, northeast of the Japanese Tea Garden, north of the New deYoung Museum site, and west and east of the California Academy of Sciences. These wooded areas and other landscape elements, such as the Rhododendron Dell, seclude the Music Concourse and institutions from other areas of the Park. The three historic pedestrian tunnels, near the northeast, southeast and southwest corners of the Music Concourse Bowl, extend under the surface roadways, Tea Garden and Academy Drives, and connect to paved pathways outside the Music Concourse area. There are approximately 200 surface parking spaces in the Music Concourse area accessible from Tea Garden Drive and Academy Drive.

Buildings near the proposed Underground Parking Facility site are approximately 26 to 40 feet high. The California Academy of Sciences is approximately 40 feet high. The recently demolished deYoung Museum buildings included a 125-foot tower. The Educational Tower at the under-construction New deYoung Museum will be approximately 144 feet high.

The Park as a whole is considered eligible for listing in the National Register of Historic Places as an historic district; a draft nomination for this listing has been prepared, but has not been formally submitted or approved. In the Music Concourse area, the Japanese Tea Garden has been found individually eligible for the National Register of Historic Places, but has not been formally nominated for the National Register. The Spreckels Temple of Music and John McLaren Rhododendron Dell also appear eligible, but are not currently listed on the California Register (see Section III.C, Historic Resources).

North of the Music Concourse area, extending to Fulton Street along Kennedy Drive, are Golden Gate Park uses including a playground between Eighth Avenue and Tenth Avenue, and the Rose Garden, west of Tenth Avenue.

Areas north of Fulton Street, outside of the Park, are characterized by residential uses with commercial and retail uses primarily along east-west streets such as Balboa Street. Commercial and retail uses are also present on Fulton Street near the Great Highway. Areas south of Lincoln Way, outside of Golden Gate Park, include residential use and the commercial and retail uses primarily located along Ninth Avenue, Irving Street, and 19th Avenue. Commercial and retail uses on Lincoln Way are primarily clustered near the intersections with Ninth Avenue, 19th Avenue, and the Great Highway. Residential uses surrounding the Park generally include two-story to three-story single-family and multi-family structures.

The Project Site is within a P (Public Use) zoning district, and within an OS (Open Space) Height and Bulk district. Permitted uses in a P zoning district include public structures of the city and other governmental agencies when in conformity with the *San Francisco General Plan*. Approvals for various aspects of the project may be required from the Board of Supervisors, the Planning Commission, the Recreation and Park Commission and the GGPCA. There are no specific height and bulk limits in the OS height and bulk district. Height and bulk of buildings and structures are determined in accordance with the objectives and policies of the *San Francisco General Plan*.

LAND USE CHANGES

The proposed Underground Parking Facility, Concourse surface improvements, traffic and transportation improvements throughout the Park, and other Proposition J projects would be consistent with the current uses and the land use zones around the Park. Phase I of the proposed project would be a continuation of existing Park activities and would be consistent with the P (Public Use) Zoning District. The proposed Underground Parking Facility, a non-recreational public use, would help reduce the movement of vehicles around the Park and thus improve pedestrian use and safety in the Park. Phase II of the project would also involve a continuation of existing park uses consistent with the P Zoning District. The Underground Through Street and the Eighth Avenue and Middle Drive East entry and exit ramps, also a non-recreational public use, would help to improve pedestrian circulation in the Park. The Concourse surface improvements and the Proposition J projects would improve the Park character. Therefore, the proposed project would be consistent with the P Zoning District.

The Park is within an OS (Open Space) Height and Bulk district where there are no specific height and bulk limits, and most of the development on the project site would be underground. Other proposed project elements including the new pedestrian entrances to the Music Concourse Bowl and the entrances of the vehicle ramps to the Underground Parking Facility from Tenth Avenue, and Academy Drive would be compatible in scale with the surroundings. Section III.B, Visual Quality, reviews project effects on scale and views in detail.

The proposed Underground Parking Facility would relocate and consolidate surface parking in the Music Concourse area and change parking and circulation conditions in other areas of the Park. The transportation, noise, air quality, and other physical impacts associated with the land use changes are discussed in the respective chapters of this EIR. Although the pedestrian activity at the Music Concourse would likely increase, the proposed Underground Parking Facility is not anticipated to significantly intensify use of the various buildings in the area beyond that which currently exists for the adjacent institutions. The various elements of the proposed project would not disrupt or divide the physical arrangement or function of the surrounding residential communities. The surface landscape and transportation improvements would emphasize the park character of Golden Gate Park. The Underground Parking Facility would be intended to support and improve the cultural and recreational activities around the Music Concourse, such as the New deYoung Museum, California Academy of Sciences, the Japanese Tea Garden, the Band Shell, and Strybing Arboretum. Other elements of the GGPCA projects including the Transportation Implementation Plan measures (Intra-Park Shuttle, Traffic Calming, Parking Management, Bicycle and Pedestrian Improvements, Road Closures, MUNI Service Improvements, and Cultural Shuttle) would also serve to enhance the pedestrian character of the Music Concourse and the Park, reduce the presence of private vehicles in the Park, and provide access to Park attractions. As discussed in Section III.B, Visual Quality, the Phase II Underground Through Street and associated improvements would not disturb the formal and symmetrical character of the Music Concourse or the naturalistic and pastoral character of its surroundings. The tunnels and ramps at Tenth Avenue, Eighth Avenue, and Middle Drive East would change the visual characteristics locally; however, these changes would not adversely affect the visual quality of the Music Concourse area or the Park. These changes would be considered positive land use effects in the Park. The proposed changes to Park uses would not adversely affect the potential eligibility of Golden Gate Park for listing as a district on the National Register of Historic Places (see Section III.C, Historic Resources, for further information).

CONSISTENCY WITH PLANS AND POLICIES

Golden Gate Park Revitalization Act of 1998

Proposition J, otherwise known as the "Golden Gate Park Revitalization Act of 1998" (the Act) was intended to address the need for capital improvements in the Music Concourse area of Golden Gate Park, as well as the importance of developing and implementing a comprehensive "transit first" transportation and parking management plan for the Music Concourse area and the remainder of the Park.

Proposition J states that Golden Gate Park is the cultural, recreational, and environmental heart of San Francisco and is a world-renowned resource for the residents of San Francisco and international residents alike. However, over the years, neglect, age, natural disasters and overuse have taken their toll on this great public space. The Act further states that "it is the policy of the People and the City and County of San Francisco to revitalize this irreplaceable resource and ensure the future of Golden Gate Park as a public treasure...."

Proposition J notes that the future of Golden Gate Park centers around a public park that is scenically beautiful, environmentally sensitive and culturally diverse. The Park includes thriving institutions, particularly the M.H. deYoung Memorial Museum (currently being reconstructed) and the California Academy of Sciences. The Park's future also includes the need to ensure that it is accessible by all forms of transportation. It is essential to the Park's future and to the City's cultural and recreational health that residents and visitors alike are able to use and enjoy the institutions and natural settings of the Park.

Proposition J authorized and directed the creation of the Golden Gate Park Concourse Authority (GGPCA), a non-profit public benefit corporation, to enact the ordinance to "(1) create a pedestrian oasis in the Music Concourse area of Golden Gate Park, situated between the New deYoung Museum site and the Academy of Science (the Concourse) and (2) take steps to reduce the impacts of automobiles in the Park while still providing long-term assurance of safe, reliable and convenient access for visitors to the Park, including its cultural institutions." To accomplish its objective and complete its mission, the Authority is authorized and empowered to complete three major projects: (1) design, construct, and operate an Underground Parking Facility of not less than 800 spaces nor more than 1000 spaces located within or near the Music Concourse, with an entrance and exit situated outside of the Park and dedicated exclusively for the Underground Parking Facility; (2) design and implement improvements of the Concourse to enhance its natural and scenic landscape; and (3) design and implement traffic, transit, and infrastructure plans, programs, policies, goals, and improvements relating to the Music Concourse area and the remainder of the Park necessary or appropriate to facilitate a park that is accessible to all of the public. As described in Chapter II, Project Description, the proposed project seeks to satisfy the major objectives of Proposition J.

Proposition J, Section 10, requires the Recreation and Park Commission to proceed expeditiously with the adoption of a *Golden Gate Park Master Plan*. The actions of the Authority in respect of the surface of the Concourse area, the implementation of Authority plans and the performance of its functions shall be consistent with the goals and objectives of the *Golden Gate Park Master Plan*. Proposition J also authorizes the Authority to recommend to the Recreation and Park Commission changes to the *Golden Gate Park Master Plan*, as necessary or appropriate.

Golden Gate Park Master Plan[4]

The *Golden Gate Park Master Plan (Master Plan)*, prepared by the Recreation and Park Department and adopted in 1998, is a comprehensive planning document that includes general objectives and policies for the Park, management strategies, and specific objectives and policies relating to the Park landscape, circulation, recreation facilities, visitor facilities, buildings and monuments, utilities and infrastructure, Park maintenance and operations and special area plans.[5]

The *Master Plan* describes the mission and purpose of the Park as to serve as an open space preserve in the midst of San Francisco. Most of the historic Park is a cultivated pastoral and sylvan landscape, defined by abundant evergreen woodland. The Park is designed and managed to afford opportunities for all to experience beauty and tranquility, recreation, and relief from urban pressures.

Relevant objectives in the *Master Plan* include:

- Objective I - Land Use and Activities: Ensure that land use and activities in Golden Gate Park contribute to the mission and purpose of the Park. The activities within a designated land use zone should be appropriate to the land use purpose.

  This objective has two primary goals – to identify appropriate land uses within the Park and to identify what uses and activities are appropriate within each land use zone. The Golden Gate Park Master Plan has divided the Park into nine land use zones, which include Naturalistic Parkland, Major Meadows and Lawns, Major Recreational Areas, Indigenous Oak Preserves, Special Horticultural Areas, Strybing Arboretum and Botanical Gardens, Music Concourse area, Maintenance/Operations Areas, and Vehicle Circulation and Parking.
- Objective II – Landscape Preservation and Renewal: Provide for the protection and renewal of the Park landscape.
- Objective III – Park Circulation: Create and maintain a parkwide system of recreational roadways, pathways, and trails. Minimize motor vehicle traffic.
- Objective VIII - Community Involvement Process: Foster community participation in guiding the future of Golden Gate Park.

The *Master Plan* includes the Music Concourse Special Area Plan. However, the *Master Plan* notes that the GGPCA has deferred implementation of this Special Area Plan, pending further planning for the Concourse now underway. The *Master Plan* identifies the Music Concourse as a civic space within Golden Gate Park that provides a setting for cultural institutions and events. The Music Concourse was created for the Mid-Winter Exposition of 1894. The layout, several monuments, the deYoung Museum, and the role of the Music Concourse as a cultural center are remnants of the fair's legacy.

Several elements in the Music Concourse have recently undergone renovation. The Band Shell, formally called the Spreckels Temple of Music, damaged during the Loma Prieta earthquake in 1989, was rededicated in 1994 after a complete seismic reconstruction. The four fountains in the concourse, which were turned off during the last drought and fell into disuse, have been restored.

The Special Area Plan calls for several improvements, some of which are:

- statues and monuments renovation;

- replanting of trees;
- replanting of flower beds;
- re-landscaping traffic islands;
- replacement of lights;
- repair of stairs and paths;
- provision of new benches;
- accessibility improvements;
- bandstand annex improvements;
- creation of a café plaza west of the band shell;
- replacement of a temporary food-vending facility with a permanent structure;
- consolidation of gardeners' section headquarters, maintenance containers, and parking attendant station in the bus parking area;
- provision of monitored bicycle parking;
- provision of an information kiosk;
- provision of new trash receptacles; and
- rehabilitation of tunnels.

As discussed in Chapter II, Project Description, the *Master Plan* includes traffic management measures that would be implemented as part of the GGPCA Section 8 plans. These include Kennedy/Stanyan/Kezar entry improvements/traffic calming; landscape extensions on eastern Kennedy Drive; Tea Garden Drive traffic calming; intersection paving reductions at the following locations: Stow Lake Drive at Kennedy Drive, Haight Street at Stanyan Street, King Drive and The Great Highway; Stanyan/Fulton intersection improvements; and conversion of 30th Avenue to a one-way entrance into the Park. The proposed GGPCA projects would address a number of the Special Area Plan improvements, including landscaping completed as part of the parking facility development and other public enhancements; repair or replacement of existing stairs; accessibility upgrades; and rehabilitation of the historic pedestrian tunnels.

The *Master Plan* identifies potential closure of certain nonessential roads in the Park. Proposed closures would include certain segments of Arguello Boulevard, Conservatory Drive

East, Middle Drive West, Music Concourse Roadway, South Fork Drive, Waller Street, Seventh Avenue entry, and 47th Avenue (see also Chapter II, Project Description). The closure of these roads would be implemented as part of the Section 8 plans. These changes, if implemented, would not directly affect traffic access to the Music Concourse area.[6]

As discussed in the Project Description, the *Master Plan* also includes parking management measures and bicycle/pedestrian improvements that would be implemented as part of the proposed project.

The *Golden Gate Park Master Plan EIR* identified that the above-mentioned circulation improvements proposed in the *Master Plan* would result in slight reduction of roadway pavement, returning areas to parkland and a slight increase in the amount of landscape, trail, and pathway area within the Park.[7] Therefore, the *Golden Gate Park Master Plan EIR* concluded that the circulation improvements including traffic calming measures, parking management, road closures, and bicycle and pedestrian improvements would not have adverse land use effects. Some of these circulation improvements identified in the *Master Plan* are proposed to be implemented as part of Proposition J (see Chapter II, Project Description). Therefore, as per CEQA, further land use analysis of these elements of the proposed project is not required.

General Plan Policies

The Planning Commission and other City decision-makers would evaluate the proposed project against the provisions of the *General Plan* and would consider potential conflicts with the *General Plan* as part of the decision-making process. This consideration of *General Plan* objectives and policies is carried out independently from the environmental review process as part of the decision to approve, modify, or disapprove a proposed project. Any potential conflicts with provisions of the *General Plan* that would cause physical environmental impacts have been evaluated as part of the impacts analysis carried out for other topics in this project EIR and the Initial Study, Appendix A. Conflicts with *General Plan* policies may be considered in the project evaluation process.

The *San Francisco General Plan* Recreation and Open Space Element includes policies for preserving existing open space; preserving sunlight in public open space; eliminating non-recreational uses and reducing automobile traffic in parks; and making open space accessible to people with special needs. The Urban Design Element policies call for protection of important views, quality of design and relationship to open spaces, increase in visibility of major destination areas, and height and bulk characteristics. The EIR discusses project effects on visual quality and urban design in Section III.B, Visual Quality.

The project would be reviewed by the Planning Department/City Planning Commission in the context of applicable objectives and policies of the *San Francisco General Plan*. Some key objectives and policies are noted here; others may be addressed when necessary approvals are sought.

Recreation and Open Space Element

- Objective 2: Develop and Maintain a Diversified and Balanced Citywide System of High Quality Public Open Space.
  - Policy 2: Preserve existing public open space.
  - Policy 3: Preserve sunlight in public open space.
  - Policy 4: Gradually eliminate non-recreational use in parks and reduce automobile traffic in and around public open spaces.
  - Policy 6: Make open space accessible to people with special needs.
  - Policy 8: Develop a citywide urban trails system that links city parks and public open space, hilltops, the waterfront and neighborhoods and ties into the regional hiking trail system.
  - Policy 10: Develop a master plan for Golden Gate Park.

Urban Design Element

- Objective 1: Emphasis of the characteristic pattern, which gives to the City and its neighborhoods an image, a sense of purpose, and a means of orientation.
  - Policy 1: Recognize and protect major views in the city, with particular attention to those of open space and water.
  - Policy 4: Protect and promote large-scale landscaping and open space that define districts and topography.

  - Policy 5: Emphasize the special nature of each district through distinctive landscaping and other features.
  - Policy 7: Recognize the natural boundaries of districts, and promote connections between districts.
  - Policy 8: Increase the visibility of major destination areas and other points for orientation.
  - Policy 9: Increase the clarity of routes for travelers.
- Objective 2: Conservation of resources, which provide a sense of nature, continuity with the past, and freedom from overcrowding.
  - Policy 1: Preserve in their natural state the few remaining areas that have not been developed by man.
  - Policy 2: Limit improvements in other open spaces having an established sense of nature to those that are necessary, and unlikely to detract from the primary values of the open space.
  - Policy 4: Preserve notable landmarks and areas of historic, architectural or aesthetic value and promote the preservation of other buildings and features that provide continuity with past development.
  - Policy 5: Use care in remodeling of older buildings in order to enhance rather than weaken the original character of such buildings.
- Objective 4: Improvement of the neighborhood environment to increase personal safety, comfort, pride, and opportunity.
  - Policy 1: Protect residential areas from the noise, pollution, and physical danger of excessive traffic.
  - Policy 2: Provide buffering for residential properties when heavy traffic cannot be avoided.
  - Policy 3: Provide adequate lighting in public areas.
  - Policy 4: Design walkways and parking facilities to minimize danger to pedestrians.
  - Policy 9: Maximize the use of recreation areas for recreational purposes.

During the project approval process, the decision-makers must evaluate and balance the potentially conflicting goals of different *General Plan* policies and plan elements. The decision-makers may identify potential conflicts between the project and policies of the General Plan and other plan elements. Those conflicts would not be considered significant environmental effects, unless such conflicts resulted in physical environmental effects. This EIR identifies physical effects of the project.

City Planning Code Section 101.1

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which established eight Priority Planning Policies. The policies, contained in Section 101.1 of the City Planning Code, are: (1) preservation and enhancement of existing neighborhood-serving retail uses and enhancement of resident employment and ownership; (2) protection of existing housing and of neighborhood character; (3) preservation and enhancement of affordable housing; (4) ensure that commuter traffic not impede transit service or overburden street or neighborhood parking; (5) maintenance of a diverse economic base by protecting industrial and service land uses from commercial office development, and enhancement of resident employment and business ownership; (6) earthquake preparedness; (7) landmark and historic building preservation; and (8) protection of open space. Before issuing a permit for any project or adopting any legislation that requires an Initial Study under the California Environmental Quality Act, or adopting any zoning ordinance or development agreement, and before taking any action which requires a finding of consistency with the General Plan, the City is required to find that the proposed project or legislation is consistent with the Priority Policies.

NOTES – Land Use, Plans, and Zoning

[1] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 103.

[2] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, pp. 103 and 106; San Francisco Planning Department, *New deYoung Museum Revisions to Final Environmental Impact Report*, Case No. 1999.455E, certified December 6, 2001, p. 12

[3] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, pp. 103 and 107.

[4] San Francisco Recreation and Park Department, *Golden Gate Park Master Plan,* adopted by the Recreation and Park Commission, October 1998.

[5] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report,* Case No. 95.243E, certified July 9, 1998, pp. S-1 - S-3.

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[6] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report,* Case No. 95.243E, certified July 9, 1998, pp. S-1.

[7]. San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, pp. 191 and 192.

B. VISUAL QUALITY

The Initial Study, published on May 18, 2002, determined that visual quality effects of the proposed project would not generate significant obtrusive light or glare that could substantially impact other properties (see Appendix A, Initial Study). The lighting system used for the proposed project would meet the Park Lighting specifications identified in the Golden Gate Park Master Plan.[1] The Golden Gate Park Master Plan proposes the use of a minimum safety "beacon" lighting system. Vehicle parking spaces, drive aisles, pedestrian walkways/ tunnels and vehicular tunnels would be illuminated as part of the proposed parking facility. All drive aisles and parking spaces would be illuminated with one fixture per bay. This would not result in obtrusive light or glare in the Park or to nearby areas outside the Park.

The following discussion includes the projects' design, appearance, possible effects on views and its relation to the scale and character of surrounding development. Section II, Project Description, and Section III.A, Land Use, Plans, and Zoning, describe the project location, the existing built environment on the project site and in the vicinity, and planned development.

SETTING

Visual quality is normally comprised of elements such as building scale, height, architectural features and materials, patterns of buildings along street frontages, and views of public open space or plazas or of more distant landscape features such as hills, the Bay or built landmarks, such as bridges. These elements help define the sense of place in a visual context.

Golden Gate Park is a nationally renowned and locally significant recreational and visual resource. In general, the overall visual character of Golden Gate Park varies from place to place as the Park includes gardens, fields, forests, ponds and lakes, monuments and buildings, nearly fifteen miles of vehicular roadways, several parking lots, paths, and paved areas. The historical landscape character of Golden Gate Park is primarily pastoral and naturalistic; however, the Park also includes a series of formal, organized spaces such as the Music Concourse. As discussed in Section III.A, most of the Park's permanent structures are located in its eastern part. The western part of Golden Gate Park is more pastoral and sylvan than the eastern part, and has a garden-like "naturalness" achieved through irrigation and landscape maintenance. Landscaping in the Park is designed with meadows, dells, flower gardens, groves, and waterfalls. The picturesque qualities of the Park are adversely affected by naturally aging forests, fallen trees and limbs, overgrown lakes with eroded slopes, deteriorated structures (fences), and illegal dumping of household materials. Park buildings and structures are varied in function, age, architectural style, and construction. Some, such as the light-brown, concrete County Fair building at Martin Luther King, Jr. Drive (King Drive) near Ninth Avenue and Lincoln Way, are relatively nondescript. Others, such as the Dutch windmills and the Conservatory, are unique within the region. The Park's two windmills are in marked contrast with one another: North (Dutch) Windmill stands whole above the trees while South (Murphy's Mill), without its sails, appears dilapidated and in disrepair. A most noteworthy structure, although visibly damaged and deteriorating, is the domed, white wood-and-glass Conservatory with its plant collection. Among the Park's other distinguished structures are the Sharon Building and McLaren Lodge with their sandstone facades and Victorian Romanesque architecture. Many of the Park's activity areas, such as the Hagiwara Japanese Tea Garden, Stow Lake, Children's Playground, or Strybing Arboretum and Botanical Gardens, have their own special visual qualities. The Park's circulation system includes roadways that provide internal access to recreation areas and attractions; thoroughfares that carry commuter traffic; and paths for pedestrians, skaters, bicycle riders, hikers, and horse back riders. One main off-road asphalt bicycle path runs the length of the Park in an east-west direction.[2]

From outside vantage points such as the University of California San Francisco (UCSF) south of the Park and Parnassus Heights, Golden Gate Park appears as green vegetation set within a nearly continuous grid pattern of streets and buildings. The perimeter of Golden Gate Park along Stanyan Street, Lincoln Way, the Great Highway, and Fulton Street is generally defined by dense growth of mature trees that separate the Park from the urban character of adjoining neighborhoods. There are visual openings in this perimeter at major entrances and roadways into the Park, such as John F. Kennedy Drive (Kennedy Drive) at Stanyan Street, Ninth Avenue at Lincoln Way, 19th Avenue at Lincoln Way, and Park Presidio Boulevard at Fulton Street, as well as at the Big Rec ball fields visible from Lincoln Way near Seventh Avenue.

Other entrances such as Eighth Avenue and Tenth Avenue at Fulton Street also open through the landscaped perimeter. From within, however, the Park offers a visual collage that varies from place to place because of the diversity of water bodies, landscapes, buildings, and activity areas. With its non-linear plan, rolling topography and internal spaces bounded by stands of dense trees and vegetation, the Park generally offers intimate rather than panoramic views. Notable exceptions are views from Strawberry Hill of City hills and neighborhoods, views from the west end of the Park to the Pacific Ocean, and Park meadow views such as from Speedway Meadow and Sharon Meadow.[3]

The Music Concourse is characterized by a symmetrical oval plan designed for the Mid-Winter Fair of 1896. Dominant visual features in the Concourse area consist of regularly spaced trees, seating, fountains, monuments and other landscape features. The Music Concourse is bounded on the north by Tea Garden Drive and on the south by Academy Drive. The lower level of the Music Concourse is approximately 10 feet below the grade of these roadways (Music Concourse Bowl or Bowl.) The longer axis of the Music Concourse Bowl is in an east-west direction and measures about 800 to 1000 feet. The shorter axis is about 400 to 500 feet wide. Three historic pedestrian tunnels, near the northeast, southeast and southwest corners of the Music Concourse Bowl, extend under the surface roadways, Tea Garden and Academy Drives, and connect to paved pathways outside the Concourse area. A series of stairs and ramps connect the sunken Music Concourse Bowl to Tea Garden and Academy Drives. There is an ornamental flight of stairs from the Music Concourse Bowl to Academy Drive at the southeast corner of the Music Concourse Bowl. The Band Shell, a stage for the Music Concourse (formally, the Spreckels Temple of Music), is at the west end of the Music Concourse. The Francis Scott Key monument, a large statue in a masonry pavilion, is at the east end of the Music Concourse and at the level of the roadway. Parking spaces surround the upper level of the Music Concourse Bowl. The Hagiwara Japanese Tea Garden, identified as a Special Horticultural Area in the Golden Gate Park Master Plan, is to the northwest of the Music Concourse. The New deYoung Museum (currently under construction on the site of the M. H. deYoung Memorial Museum) will be north of the Music Concourse, spanning approximately 400 feet along Tea Garden Drive. The building height will be about 33 to 48 feet; with the Educational Tower about 144 feet high. The California

Academy of Sciences, an approximately 567-foot-long, 40-foot-high building atop a stairway and entrance platform approximately 10 feet above Academy Drive, is south of the Music Concourse. The Shakespeare Garden is southwest of the Academy of Sciences. Forest areas of cypress, pine and eucalyptus trees surround the Music Concourse east of the Music Concourse Bowl, northeast of the Hagiwara Japanese Tea Garden, north of New deYoung Museum site, and west and east of Academy of Sciences. These wooded areas and other landscape elements, such as the Rhododendron Dell and plantings north of the New deYoung Museum site, east and west of the Academy of Sciences, and west of the Band Shell, seclude the Music Concourse and institutions from other areas of the Park.

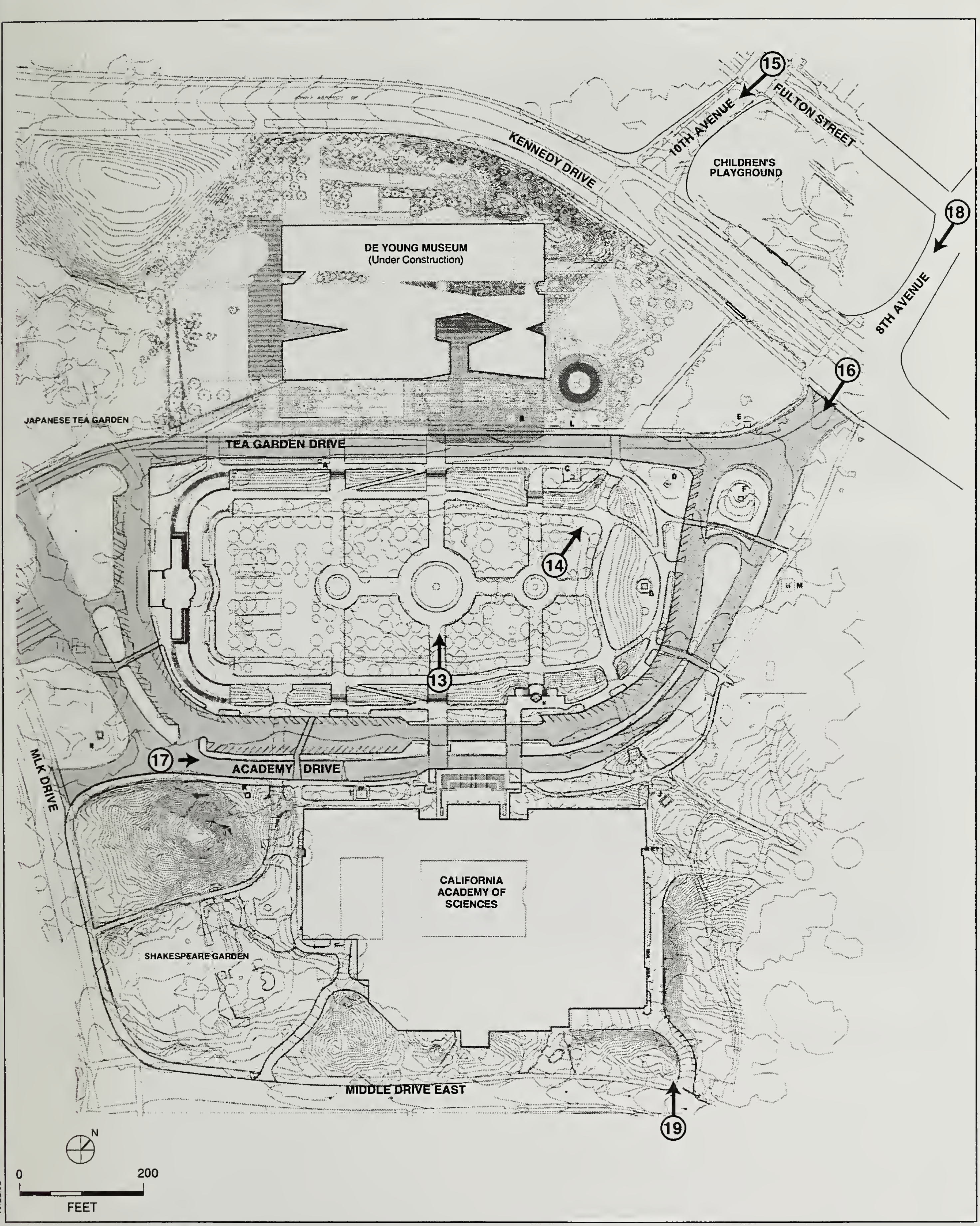
The above elements are part of the mix of cultural activities and pastoral landscapes of Golden Gate Park. As noted in Section III.A, Land Use, Plans, and Zoning, the Park as a whole is considered eligible for listing in the National Register of Historic Places. In the Concourse area, the Hagiwara Japanese Tea Garden has been found individually eligible for the California Register of Historical Resources. The Francis Scott Key Monument, at the east end of the Music Concourse, is designated City Landmark No. 96.

The strong east-west/north-south axial plan of the Music Concourse provides short-range views of the buildings and historic landscaping features within the Music Concourse area. Mature trees and other vegetation obstruct long-range views beyond the formal open space of the Music Concourse. Distant views of the Music Concourse Area can be seen from Strawberry Hill, inside Golden Gate Park, but are partially screened by trees and vegetation on the northeast slope of Strawberry Hill and northeast of Stow Lake Drive. Distant views of the Music Concourse Area from outside the Park may be visible partially from some elevated locations at UCSF, in the Golden Gate Heights neighborhood south of Kirkham Street, or from Grand View Park (near Moraga & 14th Avenue). Trees within the Park and along its perimeter largely obscure views of the Music Concourse area from Lincoln Way, Stanyan Street, Fulton Street, Tenth Avenue, and other nearby locations outside Golden Gate Park.[4]

Photographs showing representative views of the Music Concourse area have been taken at six locations in the project vicinity (see Figure 12, Viewpoint Locations). These include a view north from the Music Concourse Bowl (Figure 13); a view of the northeast pedestrian tunnel from within the Music Concourse Bowl (Figure 14); a view south of the Park entrance at Tenth Avenue from Fulton Street (Figure 15); a view southwest from Tea Garden Drive near Kennedy Drive (Figure 16); a view of Academy Drive northeast of its intersection with King Drive (Figure 17); a view south from the northeast corner of Eighth Avenue near Kennedy Drive (Figure 18); and a view north from Middle Drive East (Figure 19).

Figure 13, which includes existing views north from within the Music Concourse Bowl, shows the landscape features of the Music Concourse Bowl, including the central Rideout Fountain, the trees, seating, stairs and ramps that connect the Bowl to Tea Garden Drive, and the existing deYoung Museum buildings (since demolished). Other tree cover is seen west of the New deYoung Museum site and the Music Concourse. Figure 14 illustrates the pedestrian tunnel at the northeast corner of the Music Concourse Bowl. This view also illustrates the grade difference between the Music Concourse Bowl and roadways such as Tea Garden Drive. Figure 18 is a view from outside Golden Gate Park, at Tenth Avenue and Fulton Street. Dense trees and vegetation from this location block views of the Music Concourse area.

Figure 15 is a view south entering the park from the northeast corner of Eighth Avenue near Kennedy Drive. Dense trees and vegetation from this location block views of the Music Concourse area. Figure 16 is a view of the Music Concourse southwest from Tea Garden Drive near Kennedy Drive, and illustrates some of the monuments in the Music Concourse area including the Francis Scott Key monument and the Junipero Serra monument, the surface parking around the Music Concourse Bowl, the trees and other landscaping to the east, and the California Academy of Sciences building to the south. Figure 17 is a view from Middle Drive East looking north. This view includes the eastern end of the California Academy of Sciences, the trees to the east of the California Academy of Sciences, and on-street parking on Middle Drive East. Figure 19 is a view of Academy Drive viewed northeast of the intersection of King Drive and Academy Drive. This view includes the north side of the California Academy of Sciences. Dense trees and vegetation also block views of the Music Concourse area from this location.

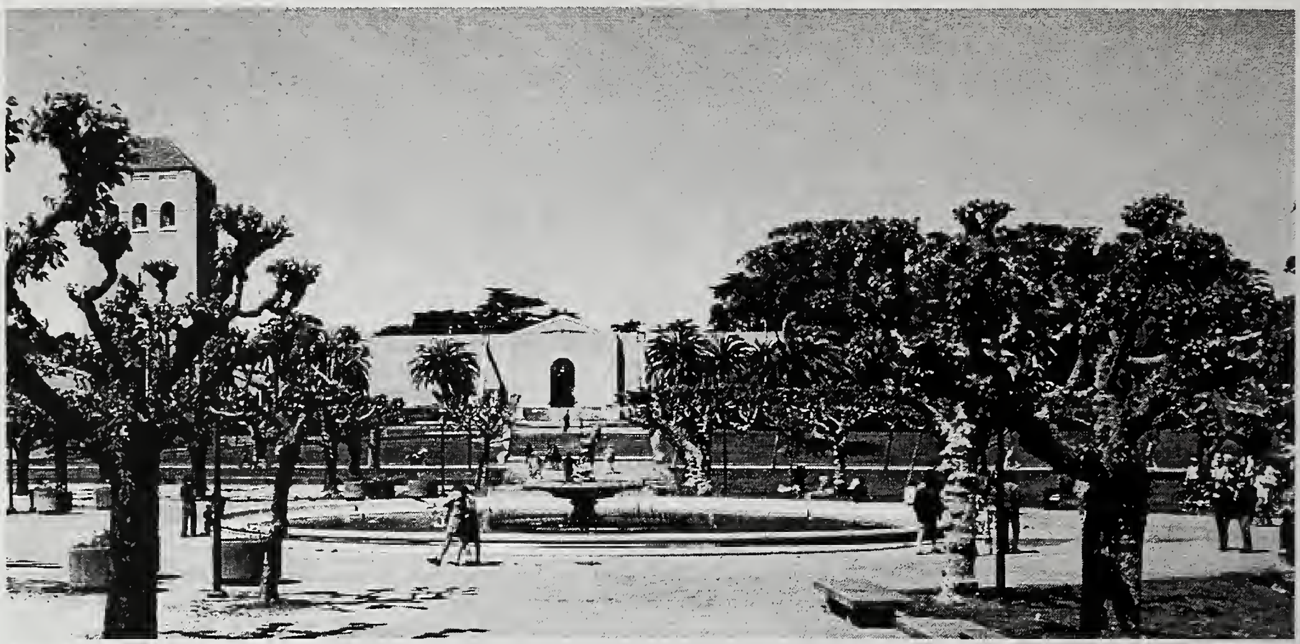


10.22.02

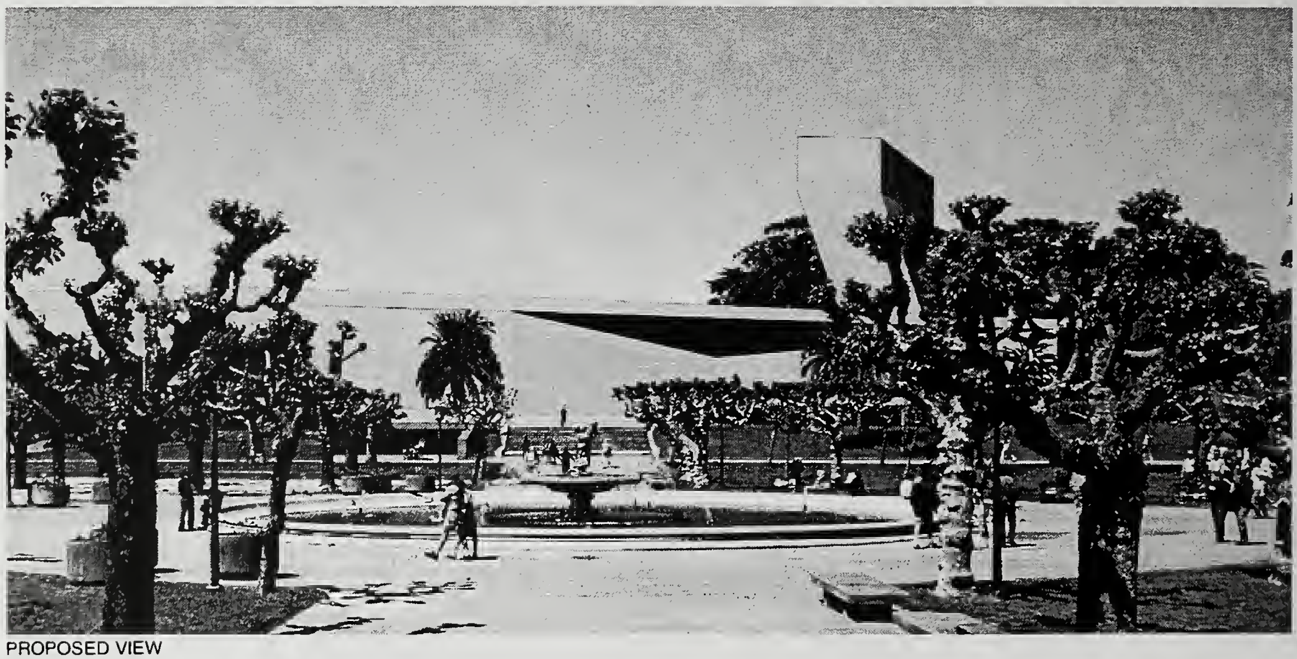
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 12: VIEWPOINT LOCATIONS



EXISTING VIEW

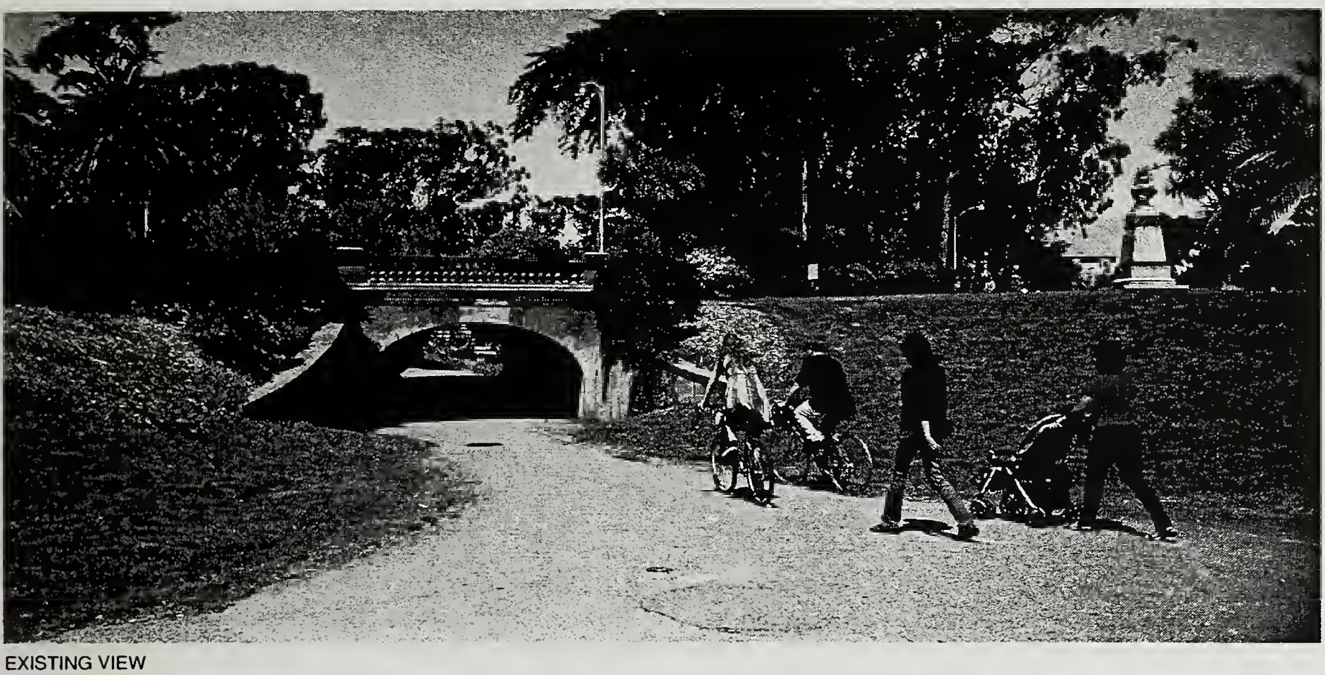


PROPOSED VIEW

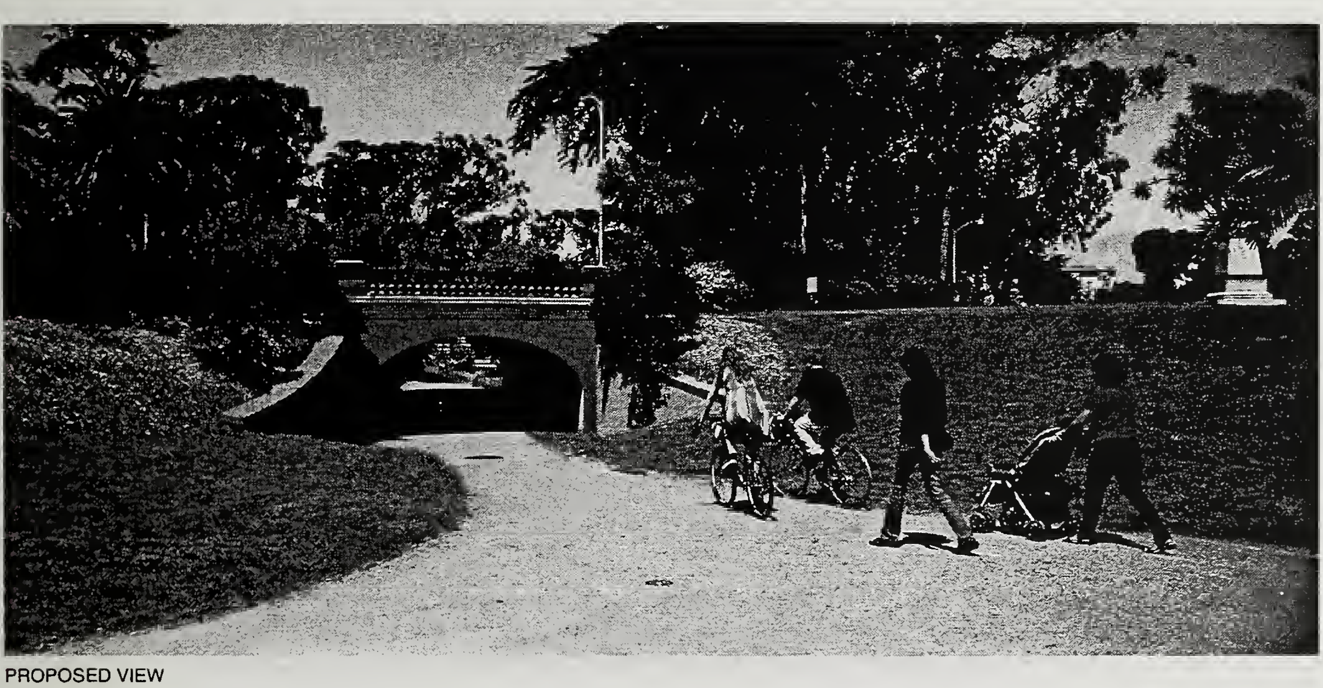
10.22.02

SOURCE: Square One Productions

FIGURE 13: VIEW NORTH FROM THE MUSIC CONCOURSE BOWL WITH PHASE I



EXISTING VIEW



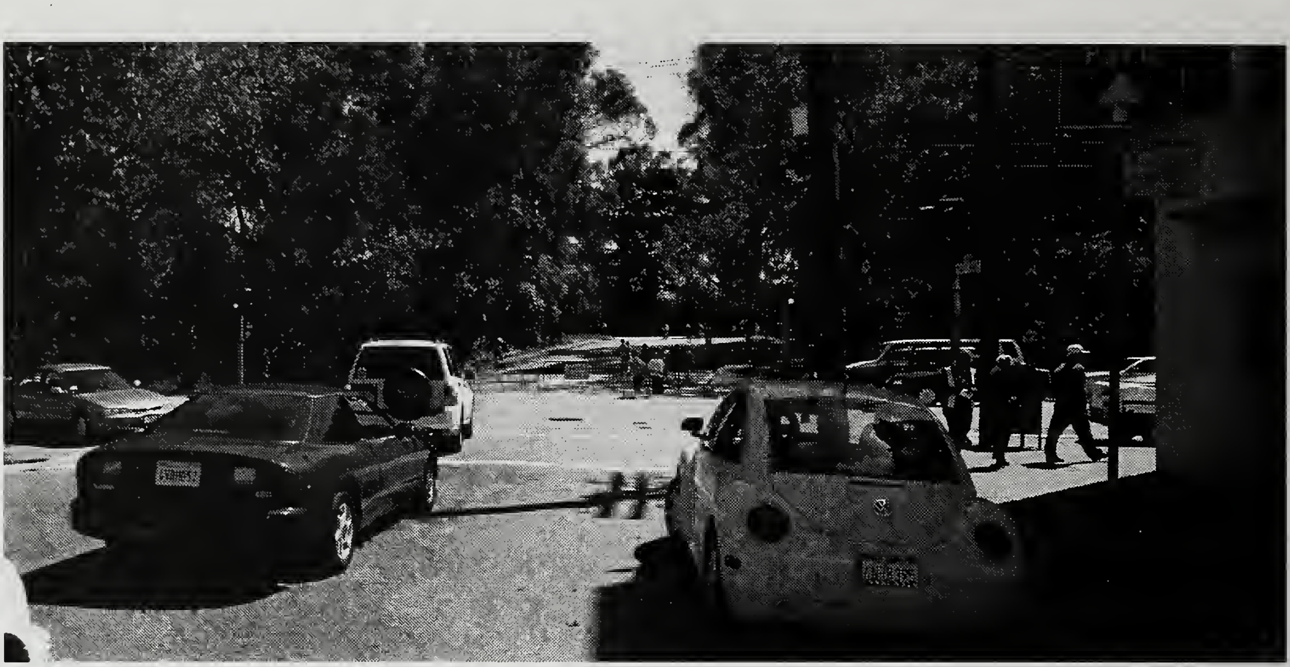
PROPOSED VIEW

10.22.02

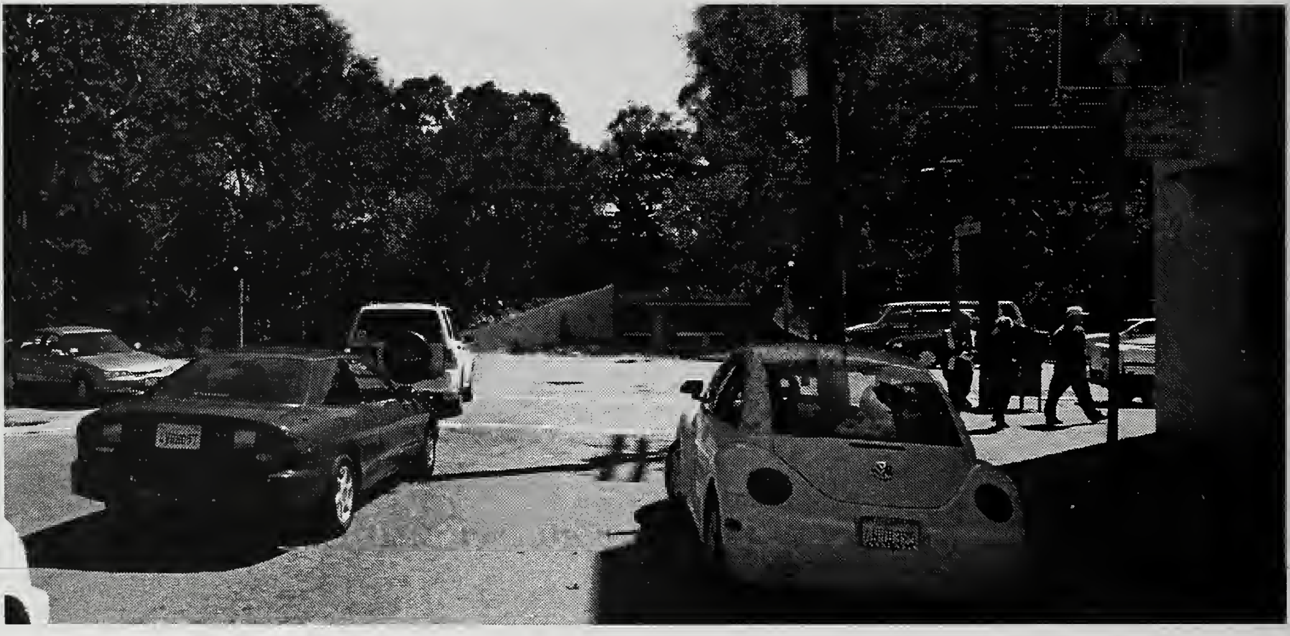
SOURCE: Square One Productions

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 14: VIEW OF NORTHEAST PEDESTRIAN TUNNEL FROM THE MUSIC CONCOURSE BOWL WITH PHASE I



EXISTING VIEW

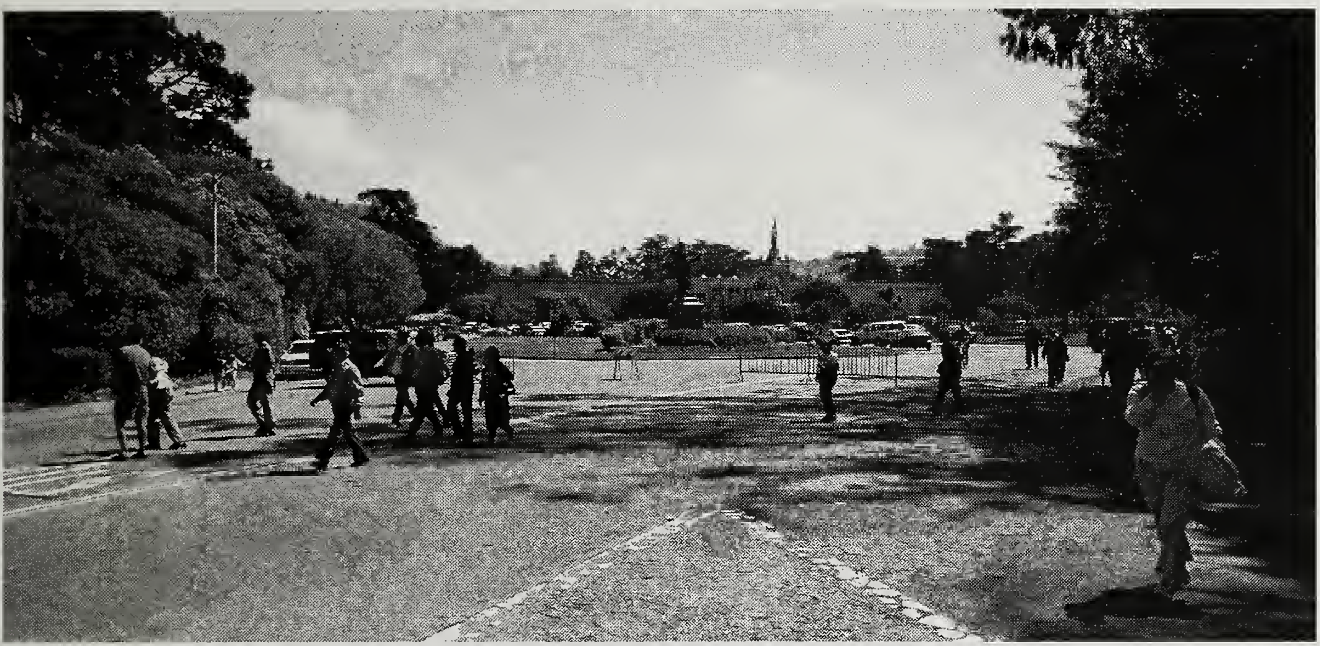


PROPOSED VIEW

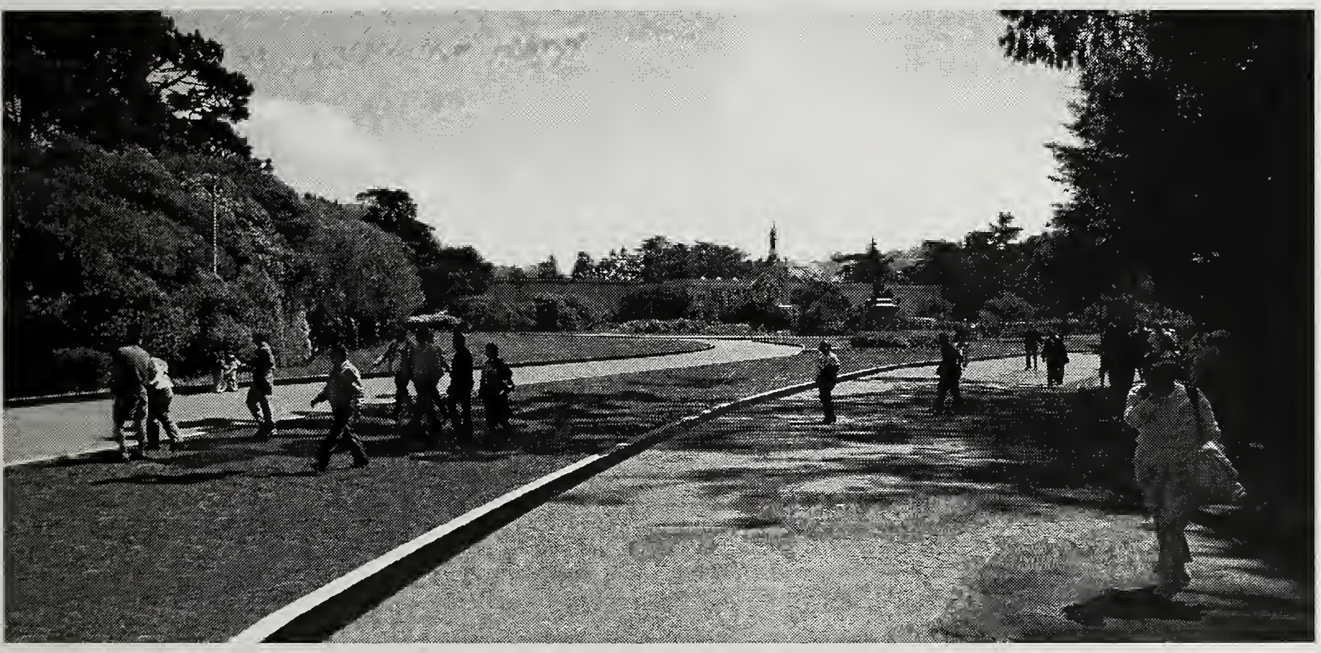
10 22 02

SOURCE: Square One Productions

FIGURE 15: VIEW SOUTH OF PARK ENTRANCE AT TENTH AVENUE FROM FULTON STREET WITH PHASE I



EXISTING VIEW

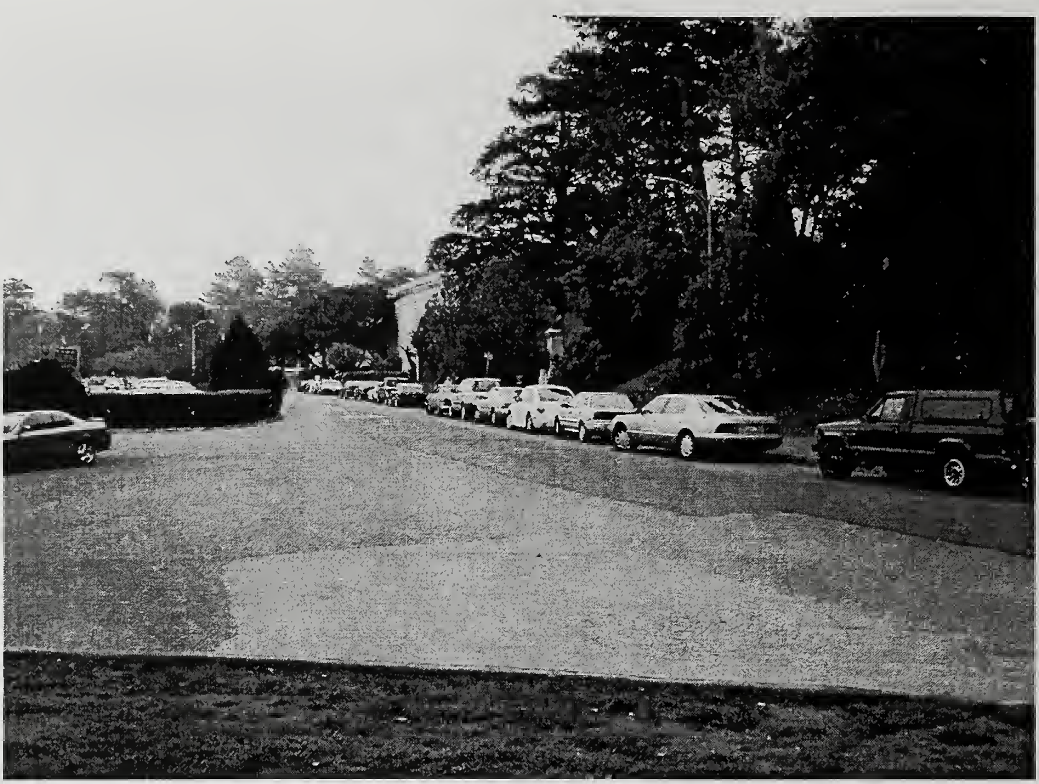


PROPOSED VIEW

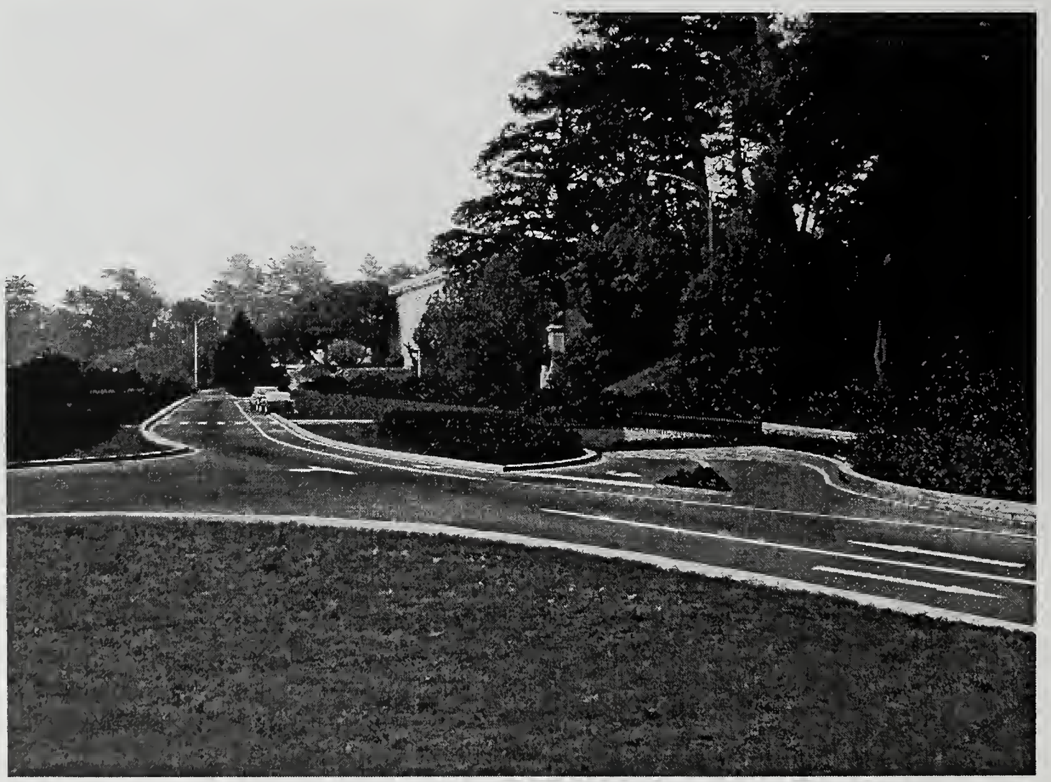
10.22.02

SOURCE: Square One Productions

FIGURE 16: VIEW SOUTHWEST FROM TEA GARDEN DRIVE NEAR KENNEDY DRIVE WITH PHASE I



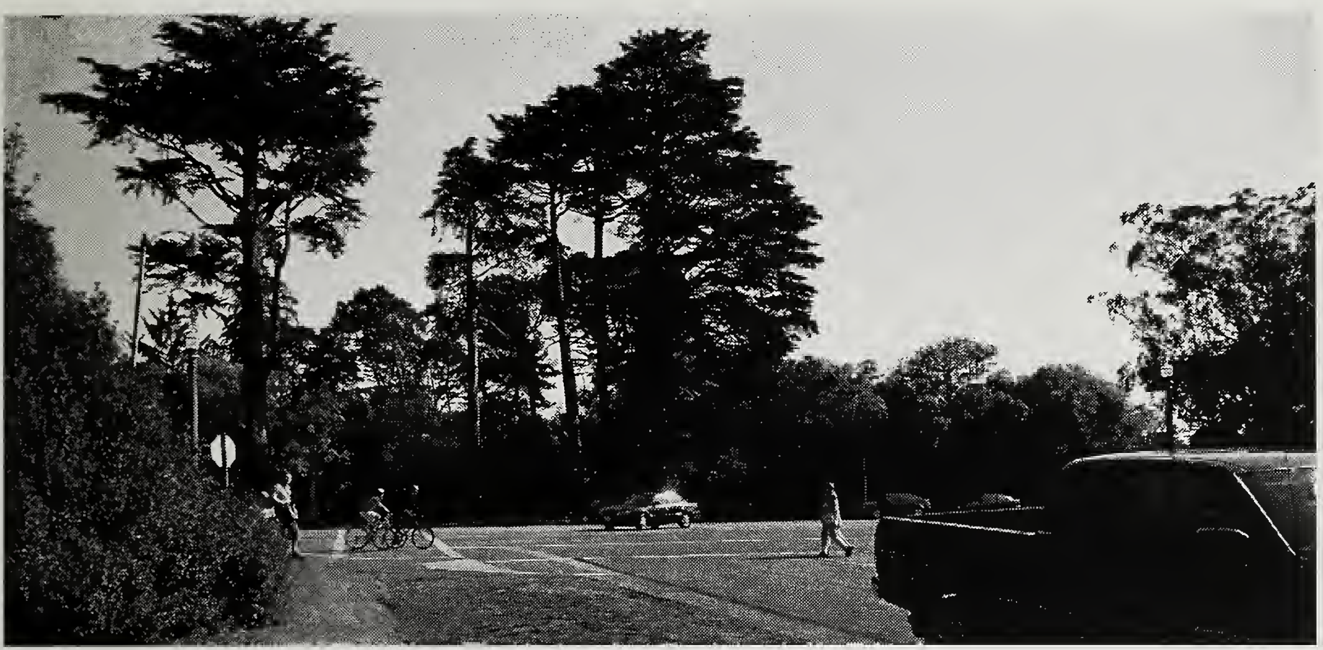
EXISTING VIEW



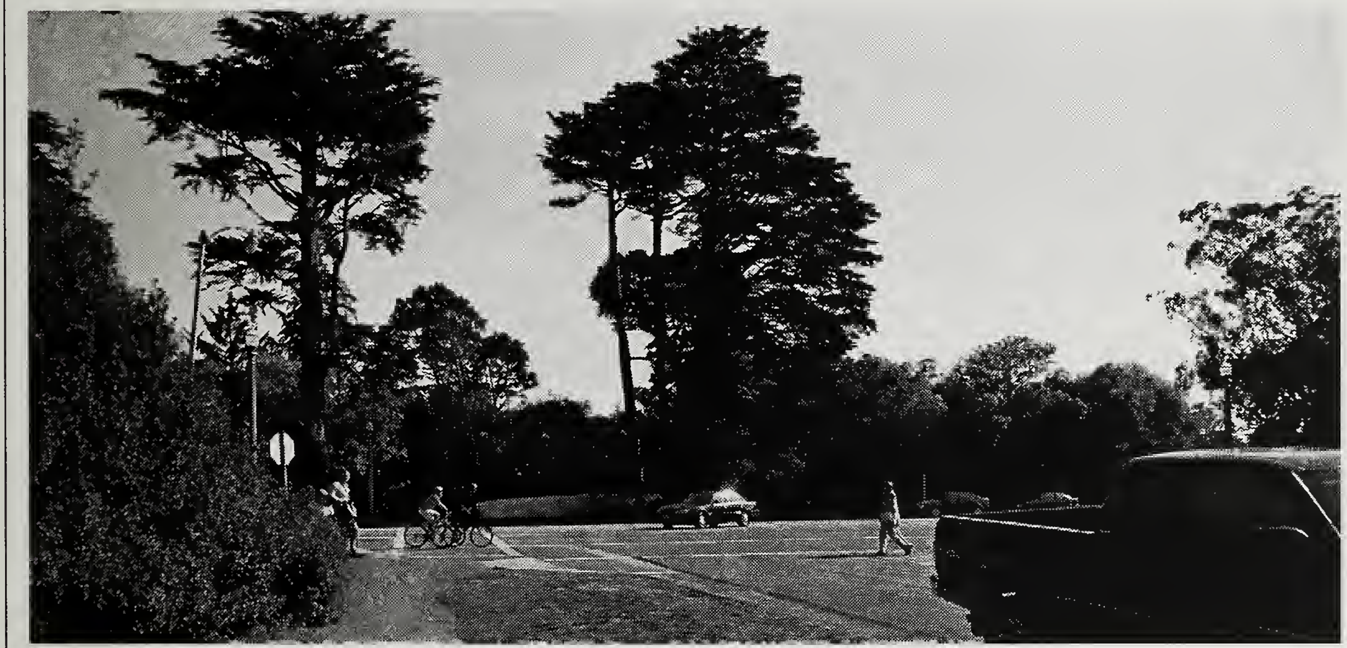
PROPOSED VIEW

SOURCE: Gordon H. Chong & Partners

FIGURE 17: VIEW OF ACADEMY DRIVE ENTRANCE RAMP WITH PHASE I



EXISTING VIEW

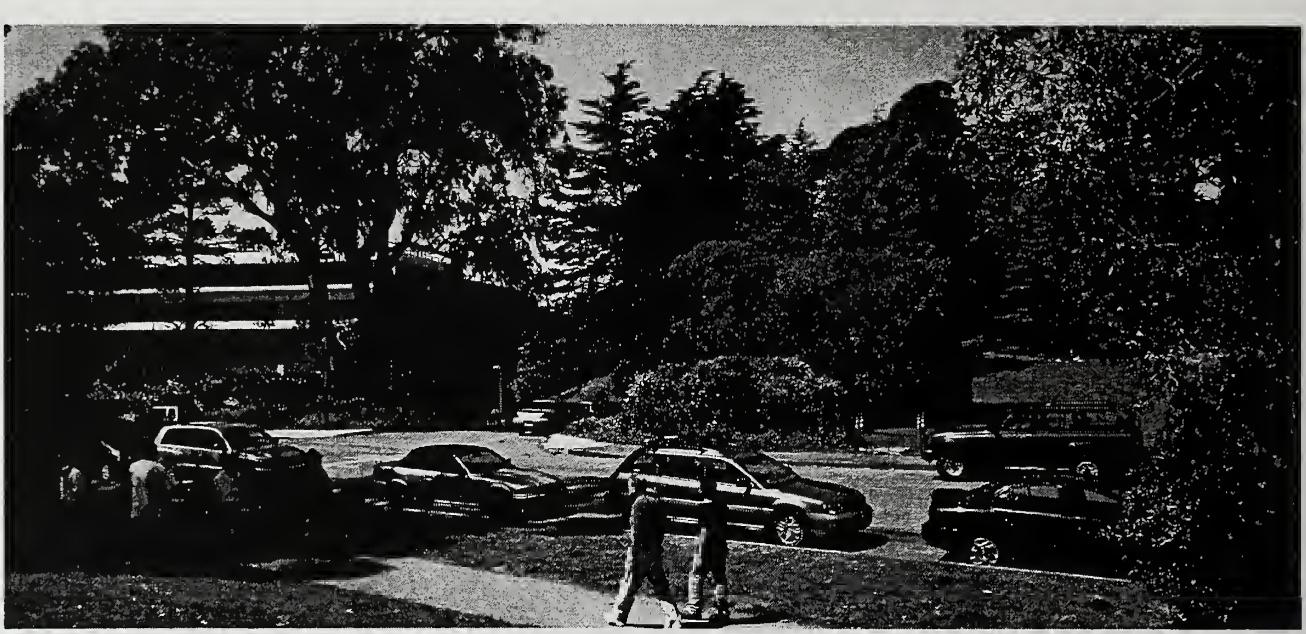


PROPOSED VIEW

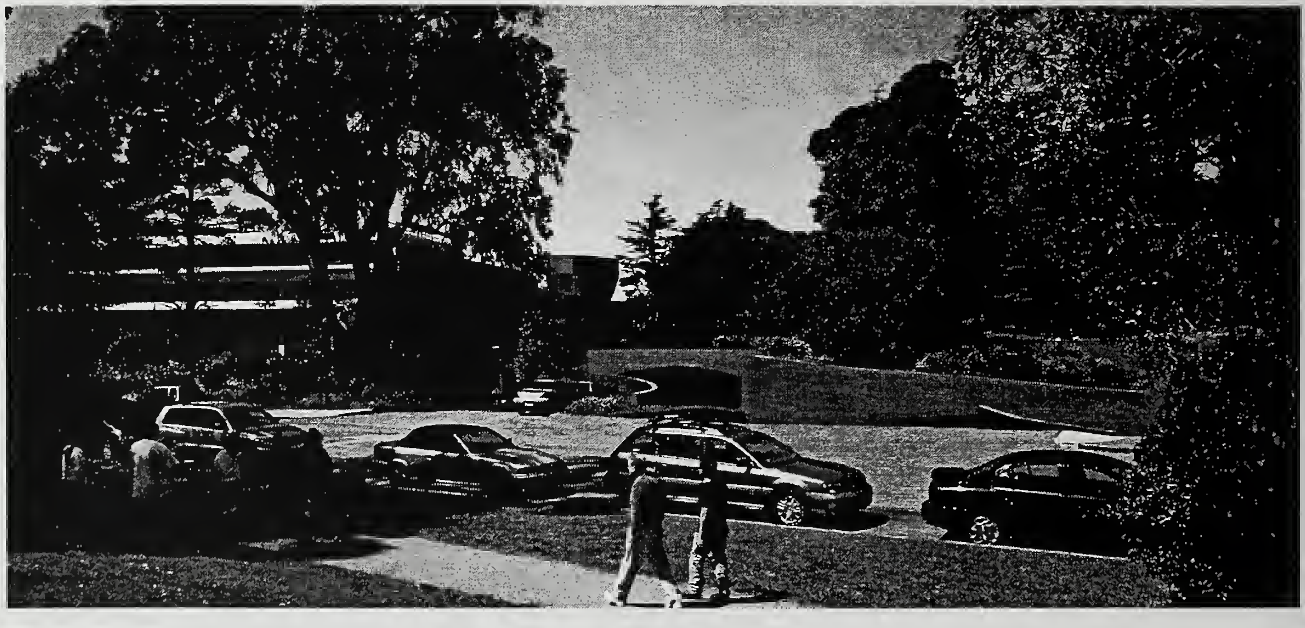
10.22.02

SOURCE: Square One Productions

FIGURE 18: VIEW SOUTH FROM NORTHEAST CORNER OF EIGHTH AVENUE NEAR KENNEDY DRIVE WITH PHASE II



EXISTING VIEW



PROPOSED VIEW

10.22.02

SOURCE: Square One Productions

FIGURE 19: VIEW NORTH FROM MIDDLE DRIVE EAST WITH PHASE II
(NEAR THE EAST SIDE OF CALIFORNIA ACADEMY OF SCIENCES)

IMPACTS

SIGNIFICANCE CRITERIA

The proposed project may result in significant adverse visual quality impacts if it (1) has a substantial demonstrable negative aesthetic effect on the character of the surrounding area, or (2) substantially degrades or obstructs scenic views or vistas now observed from public areas.

PROJECT EFFECTS

Visual quality is the perceived aesthetic value of an area and is based on a combination of inherent natural features and physical conditions, either natural, man-made or both. The degree of visual sensitivity and visibility of the project area is related to those elements that help to define the character and context of the site. The effects consider the existing character of the Park, landscaping characteristics, the system of pedestrian paths, streets, and open space, and the quality of the views into the proposed site from public vantage points and circulation routes. Analysis of visual quality impacts often relies upon determining the extent of change to the dominant visual features in the area. Visual quality and the aesthetic value of a given location in its current condition is also, to an extent, a subjective judgment by the observer. Standards for determining the significance of visual impacts from development of the proposed project are based on professional judgments and commonly accepted urban planning and design principles. To assist in the analysis of visual impacts, visual simulations of the proposed project have been prepared. A visual simulation is a photograph of the project site or area with project elements superimposed over the photograph through the use of computer imaging techniques. The purpose of the visual simulation is to depict the relative height, massing and scale of the project elements as seen from a range of vantage points against the backdrop of the existing environment. In addition, view blockage is indicated where view blockage from project construction would occur. Texture and form are also indicated as appropriate to each viewpoint location. Some of the visual simulations developed for the six selected viewpoints were prepared relatively early in the design process, and, therefore, do not include all architectural detailing and landscape features that would be incorporated in the project. These visual simulations, presented in Figures 13 through 18, illustrate the major changes that would occur on the Music Concourse vicinity as a result of construction of the Underground Parking Facility and related surface improvements. The views assume development of the Underground Through Street between Fulton Street and Middle Drive East (see Figure 10, p. 18) as noted in the Project Description, the Underground Through Street is an un-funded public enhancement of the project. Therefore, this analysis would be a conservative, full build-out illustration of potential effects. Where appropriate in the simulations, the figure depicts enhanced landscaping, removal of parking, and narrowing of roadways. These changes would be illustrative of the general visual character resulting from implementation of Phase I or Phase II projects. Final landscape plans have not been developed, and could vary from elements in the figures. Overall conclusions, however, would be expected to be consistent with the information shown.

Phase I — Underground Parking Facility and Concourse Surface Improvements

The main structure of the proposed Underground Parking Facility would not be visible from the surface of the Music Concourse. The only features of the proposed Underground Parking Facility that would be visible from any area in the Park would be the Parking Facility pedestrian entrances to the Music Concourse Bowl, the reconstructed stairs and ramps from the Music Concourse Bowl to the upper Concourse level as part of the surface improvements to the Music Concourse Bowl, the three reconstructed pedestrian tunnels at the northeast, southeast, and southwest of the Concourse, the vehicle ramps from Tenth Avenue and Academy Drive (Music Concourse Drive), and the ventilation structures.

Ventilation shafts proposed in the project area would be located to the south of Kennedy Drive adjacent to the deYoung Museum and to the north of the California Academy of Sciences, west of Academy Drive. The shafts, made of stainless steel and board-formed concrete, would be concealed behind existing trees and new landscaping and would not be visible from the Concourse or along the existing pedestrian path to the Concourse. The ventilation shafts would, therefore, not alter the general visual character of the Music Concourse vicinity or the overall Park.

The proposed Underground Parking Facility pedestrian entrance north of the Music Concourse Bowl, and the reconstructed stairs that would connect the Music Concourse Bowl to the upper Concourse level are illustrated in Figure 13. The under-construction New deYoung Museum is also visible in this view, with overall massing, and not final architectural details or landscaping of the New Museum. The proposed changes would alter the existing views. However, these changes would not detract from the dominant visual features that define the landscape of the Music Concourse and its surroundings and no scenic views would be obstructed.

A variant to the southwest pedestrian tunnel is also being considered that would replace the pedestrian tunnel with a new walkway at the surface above the parking facility. The north tunnel portal at the Concourse Bowl would be replaced in its current location after construction of the Underground Parking Facility, and would remain as an architectural feature in the Concourse Bowl without a pedestrian opening. The south portal would be removed and the existing depressed walkway that currently slopes down into the tunnel would be filled in. A new walkway at the surface would be added above the line of the existing tunnel and would connect across Academy Drive to the west end of the new pedestrian ramp leading down into the Concourse Bowl.

This variant would alter existing views in the Concourse, but would not detract from the overall visual features that define the landscape of the Music Concourse. Although the tunnel pathway would be removed, the contours of the area would not be altered and no major scenic views would be impacted. The addition of the surface walkway would not significantly alter the visual characteristics of that portion of the Concourse. Therefore, impacts on visual quality resulting from this tunnel variant would be less than significant.

Figure 14 focuses on the changes to the entrance to the existing pedestrian tunnel at the northeast of the Music Concourse. As illustrated in this view, the tunnel would continue as a pedestrian route in and out of the Concourse, independent of the Parking Facility. The U.S. Grant monument would be relocated about 15 feet southwest of its current location, as also shown in Figure 14. This change would not degrade the overall visual character of the Music Concourse nor obstruct any significant views.

Figure 15 shows views of the proposed tunnel and ramp from Tenth Avenue to the Underground Parking Facility at Fulton Street. About five trees along Tenth Avenue would be removed for construction of the proposed access to the Underground Parking Facility. However, new trees would be planted as part of the proposed project as illustrated in Figure 15. As seen in Figure 15, Tenth Avenue at Fulton Street provides a visual opening at the perimeter of the Park. The introduction of a tunnel and ramp would change the visual configuration of the surface roadway. In the context of the larger Park area, this change would not degrade overall visual quality. Trees and vegetation inside the Park already screen views from this location. Therefore, the proposed tunnel and ramp along Tenth Avenue would not obstruct any scenic views that the residents, north of the Park and along Tenth Avenue, can have from outside the Park. The proposed tunnel and ramp would not obstruct any significant distant views of the Park from surrounding areas.

Figure 16 shows the views southwest from Tea Garden Drive near Kennedy Drive with the removal of surface parking areas around the Music Concourse, reconfiguration of circulation areas, relocation of monuments, and landscaping improvements. The Figure shows the California Academy of Sciences in an illustrative manner in order to identify the overall mass of the structure, but the details of the building have not yet been completed. The removal of surface parking areas, reduction of roadway areas, and increase in landscaped areas around the Music Concourse Area would expand the landscaped area and would enhance the visual quality of the Concourse. The relocation of the U.S. Grant monument to its new site, as seen in Figure 18, would maintain its visibility and mark the entrance to the Music Concourse from Tea Garden Drive.

Figure 17 shows the Academy Drive ramp proposed with Phase I of the project, viewed from northeast of the intersection of King Drive and Academy Drive. The figure illustrates landscape improvements and surface parking removal as well the slope of the ramp and reconfiguration of circulation at the Academy Drive entrance. The introduction of the ramp and tunnel into the Underground Parking Facility would change the visual configuration of the surface roadway. However, as illustrated in this view, the tunnel entrance would be partially visible from the adjacent roadway. In the context of the larger Park area, this change would not degrade the overall visual character of the Music Concourse or alter any significant views.

In addition, the removal of surface parking and the expansion of landscaped area would enhance the overall visual quality of the Concourse. Trees and vegetation inside the Park already screen views of the Music Concourse from this location. Therefore, the proposed Academy Drive tunnel and ramp would not obstruct any scenic views of the Park from surrounding areas.

Phase II — Underground Through Street

Figure 18 shows the view south entering the Park from the northeast corner of Eighth Avenue near Kennedy Drive, including the entrance ramp to the Underground Through Street. From this location, trees block views of the Music Concourse. Approximately 18 trees would be removed in order to accommodate the ramp. Most of the trees to be removed are smaller and removal would not substantially reduce screening or shading in the area. Given the size of these trees, and that numerous trees would remain in proximity to the project area, significant views in the area would not be adversely impacted.

The proposed ramp and through road would also be below the roadway level of Kennedy Drive and would thus not substantially alter the visual characteristics of that portion of the road or the Music Concourse area. The introduction of a tunnel and ramp would change the visual configuration of the surface roadway and would be a noticeable change seen from nearby areas. However, in the context of the larger Park area, this change would not degrade overall visual quality.

Figure 19 illustrates the proposed tunnel and ramp to the Underground Through Street from Middle Drive East. About 50 trees would be removed and a portion of the hillside to the east of the California Academy of Sciences building would also be graded to accommodate the tunnel. These changes would alter the view north from Middle Drive East looking towards the California Academy of Sciences. Only a limited area to the east of the California Academy of Sciences would be affected with these changes and it would not change the overall visual character of the Park. The existing service road at the east side of the California Academy of

Sciences building is already below the level of Middle Drive East. The proposed new design of the California Academy of Sciences would remove this descending service roadway. The Phase II tunnel and ramp would also be below the roadway level of Middle Drive East and would be a similar feature and thus would not significantly alter the visual characteristics of that portion of Middle Drive East and the Music Concourse area. The new construction would also not obstruct any scenic views.

Overall, as illustrated in the visual simulations presented in Figures 13 to 19, the proposed Phase I Underground Parking Facility, and Phase II Concourse surface Underground Through Street improvements would not significantly affect the visual character of the Music Concourse area. No significant scenic views would be obstructed. The views of the Music Concourse from different vantage points within the Music Concourse Area would be altered. Landscape changes would be intended to enhance the visual character of the area. The proposed Phase I Underground Parking Facility and Phase II Concourse surface Underground Through Street improvements would not disturb the formal and symmetrical character of the Music Concourse or the naturalistic and pastoral character of its surroundings. The tunnels and ramps at Tenth Avenue, Eighth Avenue, and Middle Drive East would change the visual characteristics locally; however, these changes would not adversely affect the visual quality of the Music Concourse area or the Park.

The changes at Tenth Avenue would not substantially alter the perimeter of Golden Gate Park characterized by dense growth of mature trees that separate the park from surrounding urban character. Tenth Avenue would continue as a roadway opening in this perimeter. The Phase II Underground Through would not adversely affect the visual quality of the Music Concourse area or the Park, and therefore would not result in a significant impact to visual resources.

Other Proposition J Projects

Intra-Park Shuttle

The GGPCA introduced the Intra-Park Shuttle as a pilot program (in two phases) to provide free transportation to visitors to Golden Gate Park on Saturdays, Sundays and holidays. The Intra-Park Shuttle is part of the GGPCA Projects and was not analyzed in the Golden Gate

Park Master Plan. As a pilot program, the Intra-Park Shuttle was found to be exempt from environmental review under the California Environmental Quality Act (CEQA). Therefore, this document does not analyze visual impacts of the Intra-Park Shuttle pilot program. A separate environmental review would be conducted if the Intra-Park Shuttle is found to be feasible in the pilot study and accepted as a possible development in the Park. However, operation of buses in the Park is a current condition and the implementation of the Intra-Park Shuttle would not be expected to affect visual quality in the Park.

Traffic Calming

Proposed traffic calming measures under Proposition J would include:

- Re-striping of King Drive to enhance visibility at crosswalks and bicycle lanes.
- Traffic calming on Academy Drive in conjunction with Music Concourse area surface improvements (to be developed).
- Traffic calming on Middle Drive East in conjunction with the Concourse Parking Facility, as needed.
- Testing and installation of changeable speed signs along Kennedy Drive.

The above measures would improve visibility of pedestrians at cross walks and bicycle lanes and would enhance the overall visual quality of the Park for all Park users in those areas. These improvement measures would not degrade the character of the surrounding area nor block any scenic views. Therefore, the above traffic calming measures would not result in an adverse visual quality effect.

Other traffic calming measures identified in the *Golden Gate Park Master Plan* and proposed to be implemented as part of Proposition J (see Chapter II, Project Description) were analyzed for visual quality impacts in the *Golden Gate Park Master Plan EIR*. The *Golden Gate Park Master Plan EIR* did not identify any adverse visual impacts with these improvements. According to the analysis, visual quality would be enhanced for pedestrians, cyclists, and other Park users in those areas.[5] Further visual quality analysis is not required.

Parking Management

Parking management measures that would be part of the GGPCA Projects would include elimination of approximately 200 surface parking spaces within the immediate Music Concourse area in conjunction with the 800-space Concourse Parking Facility. Of the other 600 surface spaces to be removed, approximately 60 percent would be east of Crossover Drive and the remaining 40 percent west of Crossover Drive. The above parking management measures would free up space currently occupied by parking spaces for park landscaping. Landscaping of these spaces would enhance the overall visual quality of the Music Concourse area and the Park. These activities would not in any way degrade the visual character of the Music Concourse area and the Park nor obstruct any scenic views; thus, would not result in an adverse visual quality effect.

Other parking management measures identified in the Golden Gate Park Master Plan and that will be implemented as part of the GGPCA Projects (see Section II, Project Description) were analyzed for visual quality effects in the Golden Gate Park Master Plan EIR. The analysis concluded that the measures would not result in any significant adverse visual quality effects.[6] Therefore, further visual quality analysis would not be required.

Bicycle and Pedestrian Improvements

Bicycle, skating and pedestrian improvement measures under Proposition J include:

- Installation of new fluorescent-paint pedestrian crossing signs and ladder markings at approximately 100 crosswalks, to improve pedestrian safety throughout the Park.
- Provision for bicycle parking at all major attractions.
- Elimination of vehicle parking on selected Park roadways, to be determined, to provide more right-of-way for bicycles.

The above improvements would not affect visual quality of the Park. These improvements would not degrade the visual character of the Park nor obstruct any scenic views.

Bicycle/Pedestrian Improvements identified in the *Golden Gate Park Master Plan* and that would be implemented as part of the GGPCA Projects, were analyzed in the *Golden Gate Park*

Master Plan EIR for visual quality effects. No adverse visual quality effects were identified.[7] Further visual quality analysis is not required.

Road Closures

The road closures that would be implemented as part of the GGPCA Projects were identified in the *Golden Gate Park Master Plan*. The *Golden Gate Park Master Plan EIR* studied the visual quality effects of the proposed road closures. Road closures would reduce the amount of pavement and increase the amount of landscape, trail, and pathway areas in the Park; consequently, enhancing the visual quality for Park users.[8] No adverse visual quality impacts were identified in the *Golden Gate Park Master Plan EIR*. Further visual analysis is not required.

MUNI Service Improvements

The GGPCA would work cooperatively with the San Francisco Municipal Railway (MUNI) to enhance and market transit routes to Golden Gate Park. These changes are part of an overall MUNI plan independent of the GGPCA Projects. Planned MUNI improvements that are related to the GGPCA Projects include use of new destination signage on the 44-O'Shaughnessy bus line to identify Golden Gate Park as a destination on this route. This improvement would not result in any significant adverse environmental impact.

Cultural Shuttle

The proposed Cultural Shuttle route would operate two-way at 15-minute intervals on weekends and holidays providing connections to Golden Gate Park from various transit hubs and tourist attractions in the City. The Cultural Shuttle is part of the GGPCA Projects and was not analyzed in the Golden Gate Park Master Plan. Preliminary planning and feasibility studies are currently underway. A schedule for the Cultural Shuttle operation is yet to be determined. Therefore, this document does not include visual quality analysis of the proposed Cultural Shuttle. Based on the determination of the feasibility study, a separate environmental review would be conducted to analyze the potential impacts of the Cultural Shuttle.

Therefore, in summary, the following elements of the proposed project would not result in significant visual quality impacts: Phase I Underground Parking Facility and Concourse surface improvements, Traffic Calming, Parking Management, Bicycle and Pedestrian Movements, and Road Closures. Additional improvements in the Concourse, which include both variants of the Southwest pedestrian tunnel, the Eighth Avenue ramp, and installation of ventilation shafts, would not result in visual impacts. The above GGPCA project elements would not degrade the visual character of the Music Concourse Area or the Park as a whole. The naturalistic and pastoral character of the Park or the formal and symmetrical pattern of the Music Concourse would not be disturbed. Significant scenic views would not be obstructed with the proposed project. In addition, these elements of the proposed project would not diminish or remove features that qualify Golden Gate Park for the National Register of Historic Places, affect the ability of the Concourse to qualify as a contributing part of a larger Golden Gate Park Historic District, or affect the eligibility of the Hagiwara Japanese Tea Garden and potential eligibility of the Spreckels Temple of Music as individual California Register listings. Other elements of the Section 8 projects that include the Intra-Park Shuttle, MUNI Service Improvements, and Cultural Shuttle would be analyzed for visual quality impacts in future environmental reviews.

Construction Impacts

The visual character of the various areas of the Park would be temporarily disrupted during project construction of the Phase I Underground Parking Facility or the Phase II Underground Through Street. For example, during construction of the Underground Parking Facility, soil and sediment would be exposed, some surrounding vegetation would be removed, and heavy machinery would be in use. Various construction projects all around the Park would increase the intensity of this temporary visual impact. Phase I, the Underground Parking Facility, would be constructed in about 22 months. Other construction in the Concourse area would be underway with temporary visual quality effects, including the under-construction New deYoung Museum to be completed by 2005. The proposed new Academy of Sciences would be under construction from about 2004 to 2007. The Phase II Underground Through Street, an unfunded improvement, could be under construction during the same period. The other

Golden Gate Park Master Plan projects would be phased over a seven- to ten-year period and projects would be coordinated by zone to minimize visual impacts in the Park.[9] In addition, routine measures such as installation of visual screens would be incorporated in the project to hide construction areas from Park visitors. Consequently, the temporary visual impacts during construction would be reduced to the maximum extent practically possible, and would not be a significant adverse effect.

NOTES – Visual Quality

[1] San Francisco Planning Department, *Golden Gate Park Master Plan,* adopted by the Recreation and Park Commission, October 1998, p. 9-5.

[2] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 107.

[3] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 107.

[4] San Francisco Planning Department, *New deYoung Museum Revisions to Final Environmental Impact Report*, Case No. 1999.455E, certified December 6, 2001, p. 29-29a.

[5] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 191-192.

[6] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 191-192.

[7] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 191-192.

[8] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 191-192.

[9] San Francisco Planning Department, *Golden Gate Park Draft Master Plan Final Environmental Impact Report*, Case No. 95.243E, certified July 9, 1998, p. 197.

C. HISTORIC RESOURCES[1]

SETTING

This setting section includes information on the history, architecture and significance of existing landscape features, buildings and monuments throughout Golden Gate Park and near the proposed Golden Gate Park Concourse Authority Phase I Underground Parking Facility, other GGPCA TIP projects, and the Phase II Underground Through Street site. Architectural surveys, designations, and evaluations completed for the site and vicinity, including the *Golden Gate Park Proposed Underground Parking Structure: Evaluation of the Potential Effect on Historical Resources*, prepared by Page & Turnbull, Inc., and National Register of Historic Places, California Register of Historical Resources, and local historic listings are summarized in this section.

PROJECT SITE

The project site includes all of Golden Gate Park, a 1,017-acre, rectangular tract bounded by The Great Highway, Lincoln Way, Stanyan Street and Fulton Street. The Park, one of the most historic urban parks in the United States, was begun in 1871. Originally an unimproved expanse of sand dunes and chaparral, the area was transformed into a naturalistic assemblage of meadows, forests, groves and lakes. Paths, roads, and recreational and cultural facilities have been added since 1872. This transformation occurred under the direction of the first Park Superintendent, William Hammond Hall, and early development continued under John McLaren, who became the Park Superintendent in 1890 and held that post until his death in 1942. Golden Gate Park is divided into two primary sections, roughly east and west of Strawberry Hill and Crossover Drive. The eastern half is more intensively developed and manicured whereas the western half is wilder in character with dense pine, Monterey cypress and eucalyptus woodlands, lakes and other features. Throughout the Park, meadows and horticultural displays were spatially organized among the forest groves and along circulation networks to create pastoral settings and views. Landscape features are organized along a circulation network of two primary winding, east-west roads: Kennedy Drive and King Drive.

Secondary roads and pedestrian pathways supplement the primary road network and define important cultural nodes such as the Conservatory of Flowers and the Music Concourse.

The area east of Stow Lake was developed under McLaren for the California Mid-Winter International Exposition (Mid-Winter Fair), which opened in January 1894. A follow-up to the successful 1893 Chicago World's Columbian Exposition, the Mid-Winter Fair was meant to provide a boost to the local economy and showcase California's healthy year-round climate and domestic industries. The Music Concourse, originally developed as the landscaped "Grand Court of Honor" for the Mid-Winter Fair, was the focal center for over 180 fair buildings constructed at its edges. Most of the buildings were temporary structures constructed in eclectic styles. The last of the original fair buildings, the Fine Arts Building and Bavarian Palace, which had been incorporated as part of the M.H. deYoung Memorial Museum, were demolished as part of new construction and renovation efforts in 1930.

Landscape Features

Between 1882 and 1936, 14 lakes were developed in the Park ranging in size from .2 to 12.7 acres. Horticultural attractions in the Park include the Strybing Arboretum and Botanical Gardens (begun 1937), the Japanese Tea Garden (1894), the Conservatory of Flowers (1878) and Conservatory Valley and Lawn (1872), the Shakespeare Garden (1928), and the John McLaren Rhododendron Dell (reconstructed in 1942). Other major landscape features include the tree ferns (1939), the Rose Garden (1961), and the Queen Wilhelmina Tulip Garden (1962). Another major landscape feature, the Music Concourse (1894, rebuilt 1896), is the proposed location of the Underground Parking Facility.

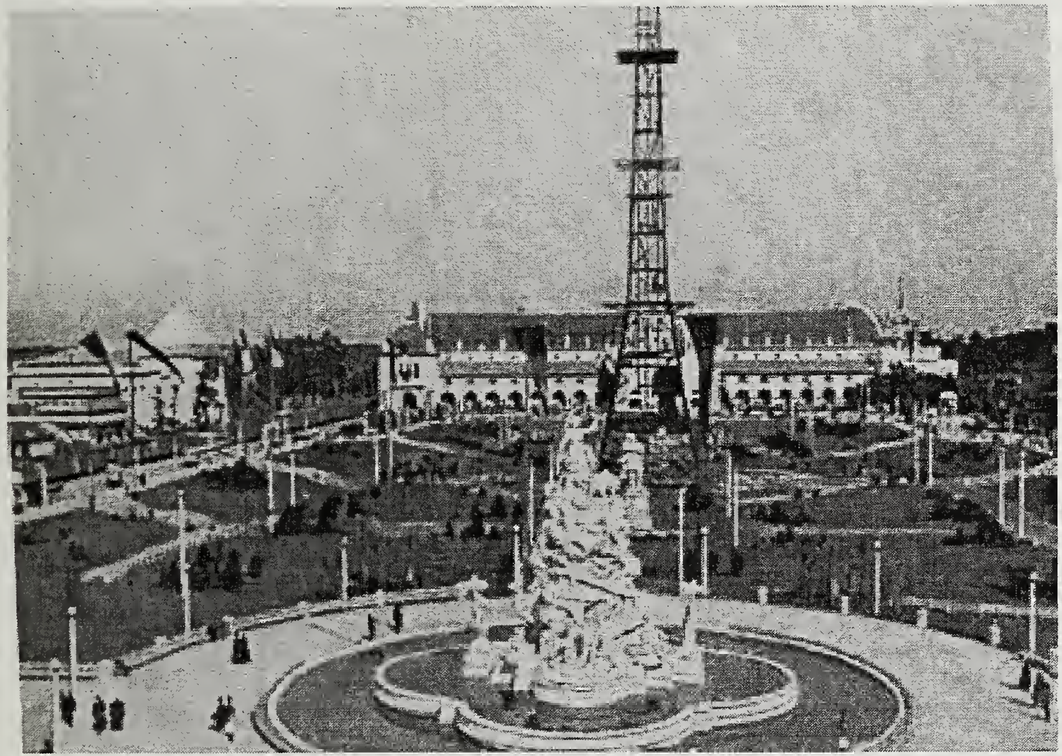
Music Concourse

The Music Concourse is a large open space between the Spreckels Temple of Music (Band Shell) at the west end and the Francis Scott Key Monument, which sits atop a grassy slope at the east end. Flanked by the deYoung Museum, the California Academy of Sciences, and the Japanese Tea Garden, the Music Concourse is the cultural center of Golden Gate Park. The bowl of the Concourse (Music Concourse Bowl) is approximately 10 feet below the surrounding roadways (Tea Garden Drive and Academy Drive) and is connected with five sets of stairs, and several ramps, illustrated in Figure 20. The arrangement is formal and symmetrical with concrete paths, regularly spaced pollarded deciduous trees, and rows of benches at the west end of the Concourse that are oriented toward the Band Shell. The Rideout Fountain (1924) is at the center of the Music Concourse with two fountains, the Charles Hall Page Fountains (1914), to the east and west along the central east-west pathway. Another fountain, donated by Phoebe Apperson Hearst and designed by architects Bakewell & Brown, is at the southeast corner of the Music Concourse.[2]

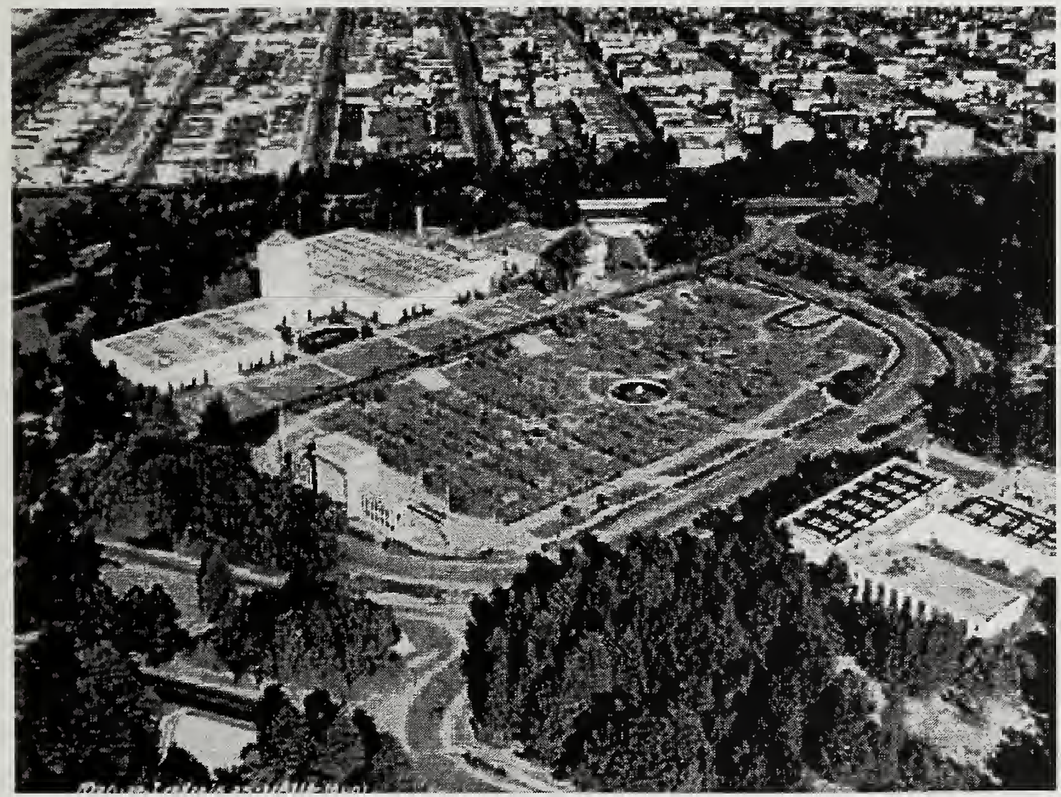
Covering almost nine acres, the original concourse was constructed in 1894 as the Grand Court of Honor, illustrated in Figure 20, for the California Mid-Winter International Exposition. The layout and design of the Music Concourse has often been attributed to Park Superintendent John McLaren. Early photographs of the previously undeveloped site (labeled on early maps as "Concert Valley") show a natural declivity covered with grasses and small trees planted by gardeners. The natural valley was hollowed out and graded in 1894 by men using mule teams and scrapers. The spot was considered to be ideal for a promenade ground and bandstand due to its sheltered location.

Japanese Tea Garden

Northwest of the Music Concourse on Tea Garden Drive, the Japanese Tea Garden is also a relic of the 1894 Mid-Winter Fair. It is a five-acre landscape consisting of Japanese gardens of several types, a moss-covered hill, curved wood bridges, tori gates, sculpture and several Japanese-style pagodas. The Japanese Tea Garden was inspired by "hill and water" landscape concepts and it is designed to evoke the feeling of a rural Japanese garden. Evergreen and deciduous accent plants, as well as traditional hand-crafted gates and bridges are found among the meandering paths. A thick canopy of trees shelters the garden from the adjacent Music Concourse. Following the closure of the Mid-Winter Fair, the Japanese Tea Garden was retained as a Park attraction.



THE GRAND COURT OF HONOR OF THE MID-WINTER INTERNATIONAL EXPOSITION, 1893



THE MUSIC CONCOURSE ca. 1925

10.22.02

SOURCE: EIP

FIGURE 20: HISTORICAL PHOTOS OF MUSIC CONCOURSE

The Japanese Tea Garden has undergone several enlargements and renovations over the past century. The first was in 1902 when it was enlarged. In 1916, the Japanese Tea Garden was again enlarged, this time with pagodas salvaged from the Japanese Pavilion at the Panama Pacific International Exposition. The garden was enlarged one last time in 1925 to its present five acres. Since the end of the Second World War, the Japanese Tea Garden has undergone a series of changes. During World War II the garden was renamed the "Oriental Tea Garden" and the Hagiwara House that stood on the property was demolished. In 1952, following a successful letter-writing campaign, the original name of the garden was reinstated. The following year the Japanese government donated a Zen garden and a 9,000 pound Lantern of Peace as a gesture of reconciliation. During the 1960s and 1970s further monuments and plaques were dedicated including a monument to the Hagiwara family and another one to Japanese pioneers. In 1985 the gardens were rehabilitated.

John McLaren Rhododendron Dell

The John McLaren Rhododendron Dell is a twenty-five acre grove of tree-sized rhododendrons east of the Music Concourse. Rhododendrons were first planted in Golden Gate Park in the 1880's when Joseph Hooker, the Director of Kew Gardens in London visited San Francisco and noted San Francisco's ideal climate for this plant, originally from Asia. By 1893, Golden Gate Park contained forty-four varieties of rhododendrons. By 1924, a total of one hundred and seventy rhododendron species had been introduced to the park, most of which were located in the first Rhododendron Grove in the southeast corner of the park. This first Rhododendron Dell was destroyed in 1925 to make way for the construction of the Kezar Stadium. In 1940, the Board of Supervisors accepted funds collected by private citizens to establish the new "John McLaren Rhododendron Dell," completed in 1945 in its present location.

Storms in the 1980s and early 1990s damaged the rhododendrons, but led to current efforts planned to rehabilitate and protect the Dell. Today, the Dell includes over 100 varieties of young and mature Rhododendrons, shade trees, and accent plantings separated by a series of gravel paths. It also contains a bronze statue of McLaren by M. Earl Cummings that stands directly on the ground. The entry to the Dell lies just east of the intersection of Eighth Avenue and Kennedy Drive and is protected by a windbreak of Pine, Cypress, and under story shrubs.

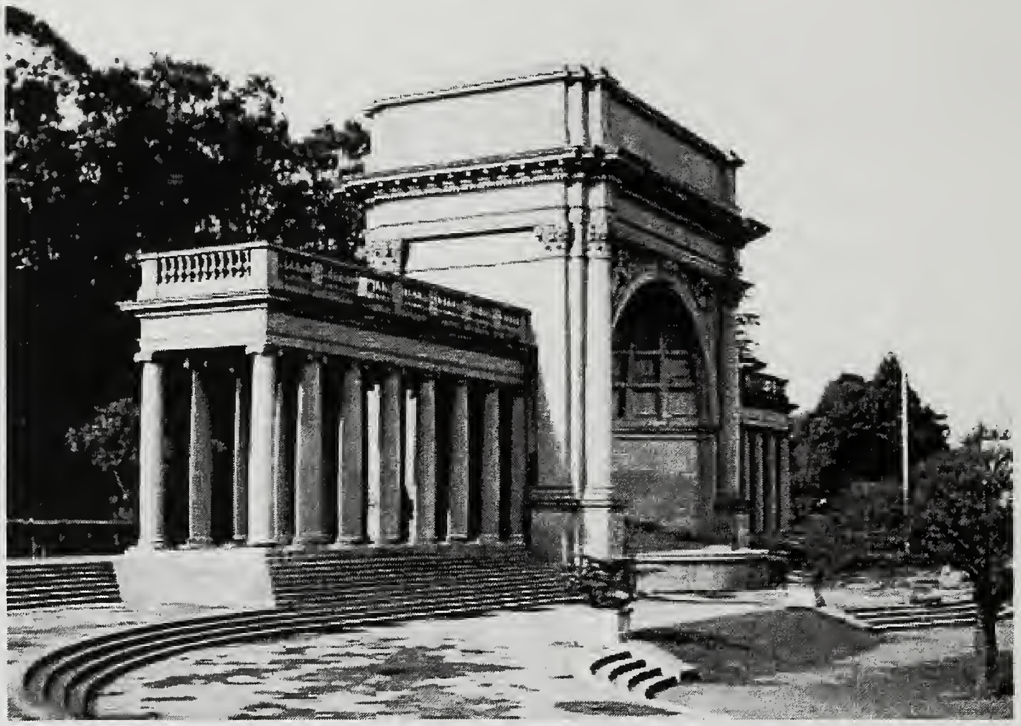
Buildings, Structures, and Monuments

The Spreckels Temple of Music (1900), the New deYoung Museum (under construction), and the California Academy of Sciences (1916) are in the Music Concourse area. Monuments in the Music Concourse area that may be affected by the proposed GGPCA projects include the Francis Scott Key (1887), U.S. Grant (1896), and the Padre Junipero Serra (1907) monuments. Other structures in the Music Concourse area that may be affected by the project include the three pedestrian tunnels providing access to the Music Concourse Bowl, dating from about 1900, and the pedestrian underpass beneath Kennedy Drive between the Music Concourse and Fulton Street (1896). These are discussed further below.

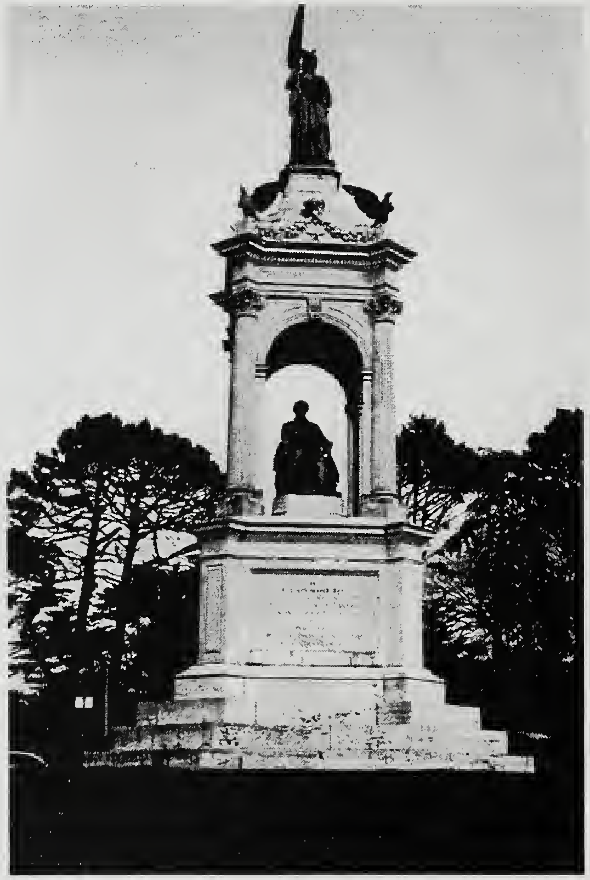
Spreckels Temple of Music

The Spreckels Temple of Music (Band Shell) is at the west end of the Music Concourse, shown in Figure 21. The Band Shell was completed a few years following the 1898 rehabilitation of the Music Concourse and is physically and functionally part of the landscape. The Spreckels Temple of Music is reached from the Music Concourse Bowl by a series of granite steps. The reinforced concrete and Colusa sandstone-clad structure measures roughly 240 feet in width and 80 feet high. The structure is composed of an arched pavilion that is flanked by two peristyles composed of engaged Ionic columns. The stage has a coffered ceiling and a curved wall which separates it from the backstage dressing rooms. The façade of the central pavilion is articulated by Corinthian columns, figural sculpture, a frieze and a denticulate broken cornice.

The Spreckels Temple of Music is a Beaux-Arts style band shell designed by the Ecole des Beaux-Arts-trained Reid Brothers, one of San Francisco's most prominent architecture firms. It was commissioned in 1898 by San Francisco sugar baron Claus Spreckels. The Temple of Music was erected the following year and dedicated by Spreckels on September 9, 1900. The construction of the Spreckels Temple of Music also resulted in the construction of several



SPRECKELS TEMPLE OF MUSIC (BAND SHELL)



FRANCIS SCOTT KEY MONUMENT, 2002

10.22.02

SOURCE: EIP

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 21: MUSIC CONCOURSE STRUCTURES AND MONUMENTS

improvements to the Music Concourse, including a series of curved granite steps at the west end and the three concrete pedestrian tunnels.

The Spreckels Temple of Music sustained major damage in the 1906 Earthquake and had to be reconstructed. The Temple of Music was regularly used and maintained over the following eighty-three years until it was again damaged in the Loma Prieta Earthquake of 1989. Since 1992, the Department of Public Works Bureau of Architecture completed a seismic upgrade and rehabilitation of the structure.

deYoung Museum[3]

The M.H. deYoung Memorial Museum was demolished in Spring 2002 as part of construction of the New deYoung Museum, designed by Swiss architects Herzog & deMeuron. The original museum used the profits from ticket sales of the Mid-Winter Fair to convert the Egyptian Revival Fine and Decorative Arts Building and the adjacent Royal Bavarian Pavilion into a permanent museum after the fair closed. On March 21, 1895 the Mid-Winter Memorial Museum opened to the public with a collection of approximately 6,000 objects, most of which came from the private collections of Michael deYoung.

In 1916 Michael deYoung selected the innovative San Francisco architect Louis Christian Mullgardt to design a new museum annex for what was now being called the M.H. deYoung museum. Mullgardt's design for the museum was conceived in three phases. The exterior was designed in an eclectic "regional" style inspired by the ornamental and planar surfaces found in Baroque Spanish architecture. The first section of the building, known as the east wing, was completed in 1917. The new annex was a five-bay, one-story structure surmounted by a gabled roof with skylights. A central wing and tower and the one-story, west wing were added in 1921 and 1925. The three wings formed a unified composition with a 125-foot, central, hipped tile roof tower. The symmetrical U-shaped plan included gallery spaces on either side of the central section and formed a central courtyard at the primary museum entrance. The courtyard contained a garden and the Pool of Enchantment.

The M. H. deYoung Museum was the subject of at least five major building renovation campaigns between 1928 and 1994, resulting in the building's ad hoc appearance. As early as 1925, a gallery addition was added to the rear of the east wing. In 1930, a central rear addition and interior modifications added 50 galleries to the museum. During this renovation campaign the original Fine Arts Building and Bavarian Palace, both dating from the exposition, were demolished and replaced by a parking lot, although the pair of Sphinxes that flanked the entry stairs was retained. Exterior modifications completed in 1949 significantly changed the appearance of the deYoung. Due to being deemed unsafe, all exterior ornament was removed and the building was finished with plain wall surfaces, allegedly to provide, as one historian put it, a more modern appearance. In 1955, the Kress Wing and Oakes Garden Court were added to the rear of the 1930 addition. In 1965, the west wing of the museum was demolished and rebuilt as the Brundage Wing. The new wing, designed by Gardner Dailey, produced a similar façade to the demolished section but it provided expanded gallery space. The Brundage Wing later would become home to the Asian Art Museum, thereby dividing the deYoung building into two separate institutions. Following the 1989 Loma Prieta earthquake, exposed steel and concrete buttresses were added to seismically brace the building.

In 2002, the deYoung Museum's Board of Trustees approved a project to demolish the seismically deficient building and to replace it with a new museum designed by the Swiss firm of Herzog & de Meuron. The new museum is under construction and scheduled to open in 2005. Several sculptures and monuments formerly located on the site of the deYoung Museum (Pool of Enchantment, Sundial, Doré Vase and the Lion) have been placed into temporary storage. They will be reinstalled on the grounds of the museum near their original locations with the exception of the Pool of Enchantment, which will be moved to a new site east of the museum.

California Academy of Sciences

The California Academy of Sciences is on the south side of Academy Drive, directly opposite the Music Concourse. It is an assemblage of buildings that has taken shape over the past three quarters of a century. Consisting of the Museum of Natural History, Steinhart Aquarium and Morrison Planetarium, the California Academy of Sciences is one of San Francisco's most distinguished cultural institutions and one of the most important institutions of its kind in the United States. Founded in 1853 and incorporated in 1871, the California Academy of Sciences was established with the ambitious mission of surveying the natural environment of the western third of the North American Continent. Originally located on Market Street, the headquarters of the Academy, as well as all the specimens, were destroyed by the 1906 Earthquake and Fire. Gradually the collections were painstakingly rebuilt from specimens gathered by a scientific expedition to the Galapagos Islands. These specimens became the core of the new California Academy of Sciences collection but for nearly a decade the Academy had no permanent home, with its collections housed temporarily at Fort Mason. Eventually it was decided to rebuild the Academy in Golden Gate Park and in 1916 the North American Hall of Mammals was constructed on the south side of the Music Concourse, on the former location of the Mid-Winter Fair's Mechanical Arts Building.

Gradually, additional buildings housed other collections of the California Academy of Sciences. The earliest section, completed in 1916, was the North American Hall of Mammals and Birds (west wing). Following it chronologically were Steinhart Aquarium in 1923 and Simpson African Hall (east wing) in 1934. These first three buildings were designed by San Francisco architect Lewis Hobart in a restrained Classical Revival mode, and in plan they conformed to a U-shaped arrangement enclosing a central courtyard. The nearly identical façades of the east and west wings still face onto the Music Concourse and retain a high degree of integrity. The corner bays feature ornate arched entrances elaborated by bold keystones and coffered ceilings. The remainder of the stone-clad façades are largely windowless, punctuated at regular intervals with blind pedimented niches. The colonnaded façade of Steinhart Aquarium is the most architecturally significant in the California Academy of Sciences, although it can no longer be seen from the Music Concourse due to the construction of Cowell Hall.

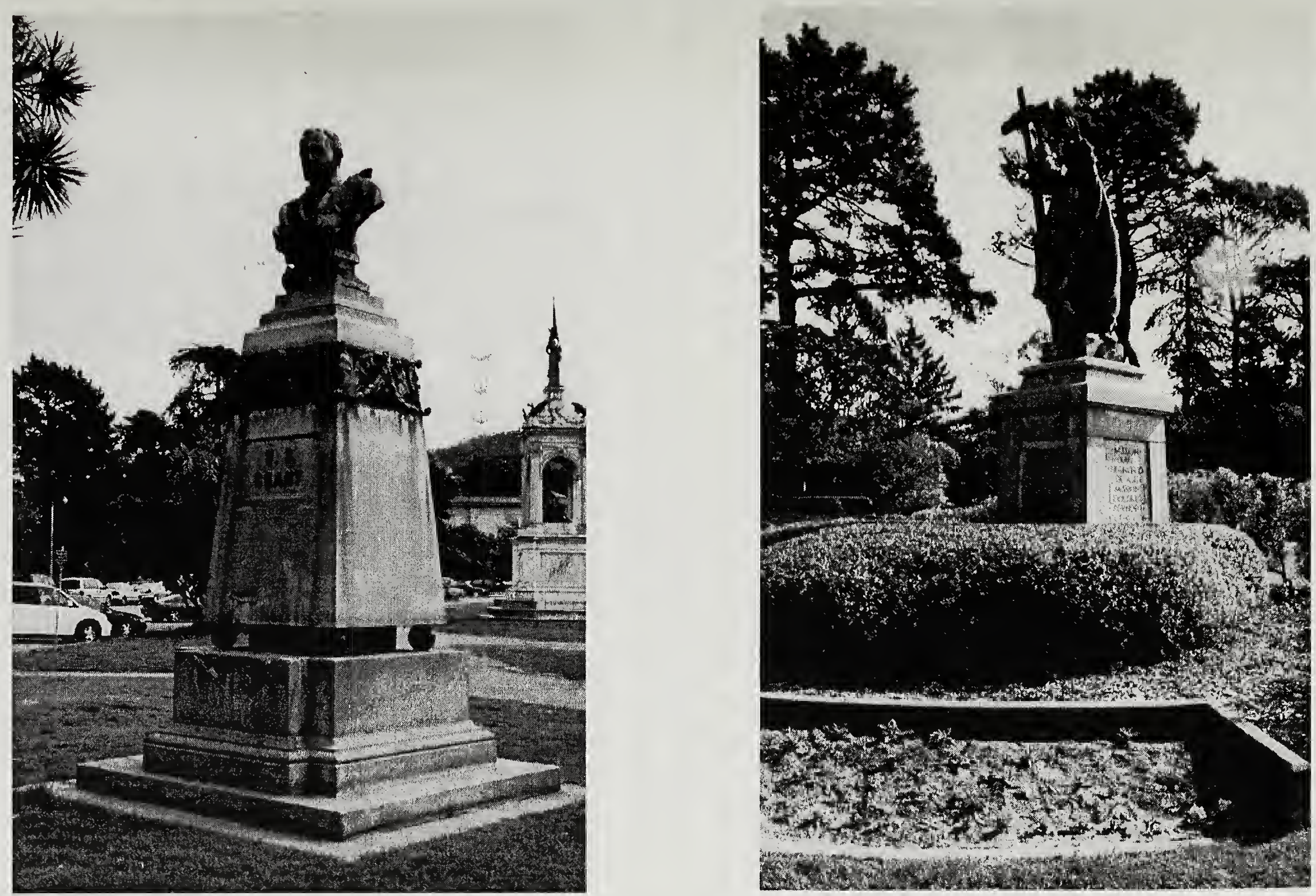
Since the 1950s, the California Academy of Sciences has continued to expand its size in order to house its growing collections and to accommodate its ever growing mission. In 1969, the central courtyard between east and west halls and Steinhart Aquarium was in-filled by the construction of Cowell Hall. This building, which was designed by architect Milton Pflueger, echoes the classical symmetry of the east and west halls with contemporary materials and design elements. Further modifications to the Academy of Sciences occurred in 1977 and 1990.

Francis Scott Key Monument

The Francis Scott Key Monument is at the eastern end of the Music Concourse illustrated in Figure 21. It is an ornately carved Victorian bronze sculpture with a travertine and marble base. The Francis Scott Key Monument has been located in three different places during its 114-year history. It was originally dedicated in 1888 east of what are now the tennis courts. It was paid for by a bequest left by James Lick, an early San Francisco pioneer real estate entrepreneur and amateur astronomer. The 52-foot travertine monument was sculpted by William Wetmore Story. The podium of the memorial features the words of Francis Scott Key. After the tennis courts were built, the Key Monument was moved to the courtyard of the California Academy of Sciences, where it remained until the construction of Cowell Hall in 1969. The monument remained in storage for ten years until activists lobbied for it to be refurbished and reassembled at its current site at the east end of the Concourse in 1977.

U.S. Grant Memorial

The Ulysses S. Grant Memorial is on the south side of Tea Garden Drive close to the intersection with Academy Drive illustrated in Figure 22. The memorial consists of a granite pedestal surmounted by a bronze bust of President Grant. Several pieces of bronzework, including a cannonball and a grouping of elements on the front of the pedestal, are missing. A committee was formed in San Francisco just weeks following Grant's death in 1885 to memorialize the Civil War General and President. Nonetheless, due to budgetary problems, the U.S. Grant Memorial was not created for another decade. Local sculptor Rupert Schmid, the sculptor of the bust at Grant's Tomb in New York, was retained to sculpt the bust for the San Francisco memorial. Plans were made to dedicate the monument on Memorial Day, 1896 but the local stonecutter's union objected to the fact that the pedestal had been constructed with prison labor. After it was taken down, a new obelisk-shaped pedestal, made of granite quarried from the McClennan Quarry in Madera County, was put in place in June. The bronze work, which consisted of the bust, a group composed of a uniform, hat,



U.S. GRANT MEMORIAL, 2002

PADRE JUNIPERO SERRA MONUMENT, 2002

10.22.02

SOURCE: EIP

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 22: MUSIC CONCOURSE MONUMENTS

trench coat, rifle, spear and sword, as well as a band of shields inscribed with Grant's Civil War battles, was cast in Europe. The U.S. Grant Memorial was accepted by the Park Commission on December 9, 1896.

Padre Junipero Serra Monument

The Junipero Serra Monument is located at the junction of Tea Garden and Academy Drives illustrated in Figure 22. The piece, commissioned by San Francisco Mayor James Phelan, consists of a bronze statue of Father Serra holding a cross and offering a benediction. The statue rests on a granite base by architect Edgar Matthews. The plaster mock up was the last commission executed by Oakland sculptor Douglas Tilden. Conceived in 1903, the Serra Monument was unveiled by the Native Sons of the Golden West on November 17, 1907.

Robert Burns Memorial

A gift from the Scottish citizens of San Francisco in 1908, the Robert Burns Memorial is at the edge of a grove that separates the Music Concourse from the Rhododendron Dell near Kennedy Drive. The bronze statue rests on a carved granite base designed by the architects John Bakewell, Jr. and Arthur Brown, Jr.

Goethe & Schiller Monument

The Goethe & Schiller Monument is at the southeast corner of the Music Concourse precinct, near the California Academy of Sciences. The monument, dedicated on August 11, 1901, was commissioned by San Francisco's German-American community in order to commemorate the friendship and collaboration of German authors Johann Wolfgang von Goethe and Johann Christoph Friedrich von Schiller. The statue is a copy of the original cast in Dresden, Germany that was dedicated in 1857, by Ernst Reitschel. The Goethe & Schiller Monument was originally located across from the entrance of the M. H. deYoung Museum, but in the 1920s was moved to its present location.

General John Joseph Pershing Monument

The John Joseph Pershing Monument is located on the main axis of the Music Concourse, on the east side of Concourse Drive. The bronze figure was commissioned by Dr. Morris Herzstein, and cast in 1921 by the local sculptor Haig Patigian using photographs of General Pershing. Upon Herzstein's death in 1927, he left an endowment for the upkeep of the monument.

In addition to the Key, Grant, Serra, Goethe & Schiller, and Burns monuments, the Music Concourse area has the largest concentration of monuments and statues in Golden Gate Park which include: the Buddha at the Japanese Tea Garden (1945); the William Shakespeare Monument (1928) and Sundial (1928) in the Shakespeare Garden, west of the California Academy of Sciences; and the Thomas Starr King (1892) monument at the east end of the Music Concourse area; the Robert Emmet (1919), Ludwig Van Beethoven (1915), and Giuseppi Verdi (1914) monuments west of the Academy of Sciences; Leonidas (the "Roman Gladiator") (1884), the Doré Vase (1893), and the Apple Cider Press (1894) near the north perimeter of the Music Concourse Bowl, which were all retained from the Mid-Winter Fair; and the Lion (1906), Pool of Enchantment (1917), Sundial (1907) Sphinxes (1903) and Miguel de Cervantes de Saavedra Grouping (1916) near the deYoung Museum (Most of those are in storage during deYoung construction.). The Music Concourse is also home to four fountains – the Rideout Fountain (1924) at the center of the Music Concourse; a pair of fountains, known as the Charles Hall Page Fountains (1914), flanking the Rideout Fountain; and the Phoebe Apperson Hearst Memorial Fountain (1926), on the south side of the Music Concourse across from the entrance to the California Academy of Sciences.

Monuments elsewhere in Golden Gate Park, outside the Music Concourse, include Portals of the Past (1909), Roald Amundsen Memorial (1929), Prayer Book Cross (1894), Pioneer Mother (1940), The Doughboy (1930), Thomas G. Masaryk (1962), Gold Star Mothers Rock (1932), the Brown Gate at Eighth Avenue (1908), John McLaren (1944), James A. Garfield (1885), Baseball Player (1891), General Henry Halleck (1886), Horseshoe Player (late 1940s), William McKinley(1904), Foresters of America Memorial (1927), Father William D. McKinnon (1927), and Saint Francis (1958).

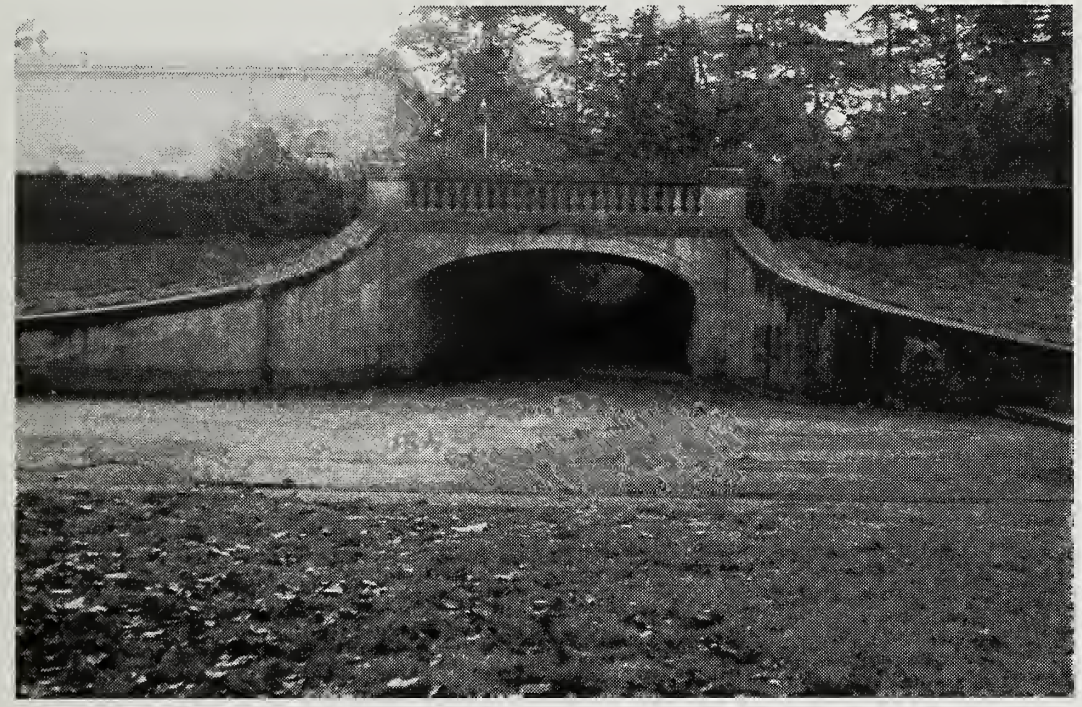
Kennedy Drive Underpass

The pedestrian underpass beneath Kennedy Drive is northeast of the Music Concourse. It spans a small valley and walkway, allowing pedestrians to walk safely from Fulton Street to the Music Concourse. The underpass consists of two sculpted arched openings on either side of a coffered tunnel. The arches feature large granite keystones, carved foliage, rusticated cast stone abutments, as well as a cast stone balustrade along Kennedy Drive. The prominent English-born architect Ernest Coxhead designed the underpass in 1896. The granite sculpture, including the foliage, the bison heads, and the keystones, was executed by sculptor Douglas Tilden. The rusticated stonework was performed by a contractor, Alexander McLennan. Probably inspired by the elegant bridge structures of New York City's Central Park, the pedestrian underpass beneath Kennedy Drive (historically known as the Tunnel under Main Drive) is considered the finest structure of its kind in Golden Gate Park.

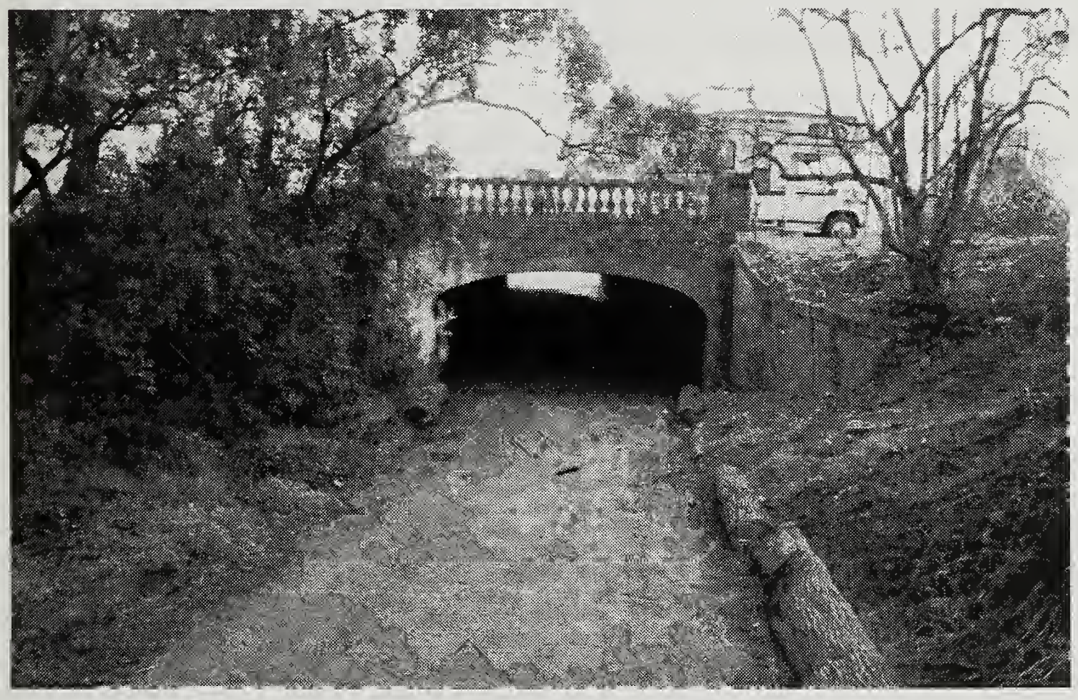
Pedestrian Tunnels

The northeast, southeast, and southwest pedestrian tunnels in the Music Concourse area provide access to the Concourse Bowl. The southwest pedestrian tunnel is illustrated in Figure 23. These tunnels provide a grade separation for pedestrian access to the Concourse that does not conflict with traffic on the streets above. Built as part of improvements to the Concourse area including the Temple of Music in 1900, the tunnels appear to be constructed of unreinforced concrete with curved retaining walls and cast stone railings at the roadway edges above. The tunnels range in length from about 75 feet to 130 feet and range in vertical clearance from about 7 feet to 9 feet. Concrete, arched façades at the tunnel openings are rusticated to look like stone.

Other historic buildings and structures in the Park, outside the Concourse area, include the Sharon Building (1888), McLaren Lodge (1896), the North (Dutch) Windmill (1902), the Park Emergency Hospital (1902), the Bowling Green Clubhouse (1915), the Beach Chalet (1925), the Alvord Lake Bridge (1889), Murphy's Mill (South Windmill) (1906), and the Millwright's House (1909).



VIEW FROM THE NORTH



VIEW FROM THE SOUTH

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SOURCE: EIP

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 23: SOUTHWEST PEDESTRIAN TUNNEL

HISTORIC PRESERVATION REGULATIONS AND CRITERIA

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. The National Register is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the National, State or local level.

Structures, sites, buildings, districts and objects over 50 years of age can be listed on the National Register as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included on the National Register. The criteria for listing on the National Register include resources that:

A. are associated with events that have made a significant contribution to the broad patterns of history,

B. are associated with the lives of persons significant in our past,

C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or

D. have yielded or may likely yield information important in prehistory or history.

None of the resources in the Music Concourse area have been determined eligible for individual listing on the National Register; however, Golden Gate Park, as a whole, has been proposed as a National Register District, as an historic landscape having achieved historical significance for the period between 1870 and 1943. A number of buildings, structures, sites and objects throughout the Park are considered to be contributing features to the proposed Golden Gate Park Historic District; these features are considered to contribute to the overall historical significance of Golden Gate Park but may or may not meet local, state, or national criteria for listing, or eligibility for listing, as individually significant historic resources. The National Register of Historic Places Registration Form for the proposed historic district identified 123 contributing features including 27 buildings, 55 sites, 11 structures, and 30 objects. Contributing features in the Music Concourse area include: the Music Concourse; Spreckels Temple of Music; Francis Scott Key Monument; Japanese Tea Garden; Shakespeare Garden; Rhododendron Dell; the pedestrian underpass known as the Tunnel under Main Drive (now Kennedy Drive); and the many monuments and fountains in the Music Concourse.

The Sharon Building, near Kezar Drive east of the Music Concourse, has been determined individually eligible for listing on the National Register. The Conservatory of Flowers and the Beach Chalet were individually listed on the National Register in 1972 and 1981, respectively. In addition, the Alvord Lake Bridge (built in 1889), at Kezar Drive west of Haight Street, is listed as a National Historic Landmark; it is significant to civil engineering as America's first reinforced concrete bridge.

California Register of Historical Resources

The California Register of Historical Resources is an authoritative listing of the State's significant historical and archaeological resources. Any resource listed in or formally determined eligible for the National Register is automatically listed in the California Register of Historical Resources, pursuant to Section 4851(a) of the Public Resources Code.

The Japanese Tea Garden has been determined eligible for listing on the California Register of Historical Resources. The Spreckels Temple of Music appears eligible for listing on the California Register, but has not been formally nominated. The John McLaren Rhododendron Dell also appears individually eligible for listing on the California Register, but has not been formally nominated.

Local Historic Preservation Regulations and Surveys

Architectural surveys provide information about existing properties that may be of value to a community. Designation or listing on a registry of cultural and/or historic resources may occur if a building, structure, site, or object is found to be of value; designated or listing can also serve to alert potential developers of the public's interest in such properties through review by public boards and commissions. There are a number of surveys and lists of San Francisco resources that are considered to have attained a degree of architectural, historical, and/or contextual importance. Local surveys relevant to Golden Gate Park include San Francisco Planning Code Article 10 and the 1976 Department of City Planning Citywide Survey.

San Francisco Planning Code Article 10

Article 10 of the Planning Code sets forth procedures regarding the preservation of sites and areas of special character or special historical, architectural or aesthetic interest or value such as officially designated City Landmarks and buildings included within locally designated Historic Districts.

The Francis Scott Key Monument, at the east end of the Music Concourse, is listed under Article 10 of the Planning Code as City Landmark No. 96. Other structures in the Park listed as City Landmarks under Article 10 include the Conservatory of Flowers (No. 50), the Sharon Building (No. 124), the North (Dutch) Windmill (No. 147), McLaren Lodge (No. 175), the Beach Chalet (No. 179), and the Bowling Green Clubhouse (No. 181).[4]

1976 Department of City Planning Citywide Survey

Between 1974 and 1976, the San Francisco Planning Department conducted a citywide inventory of the City's approximately 170,000 structures to determine their architectural importance. The physical appearance of contemporary and older buildings was surveyed but historical associations were not included in the study. An advisory review committee of architects and architectural historians determined that 10,000 of these buildings were eligible for inclusion in the survey based upon various factors including architectural design, urban design context, and overall environmental significance. These buildings represent roughly 10% of the City's entire building stock. Buildings included in the survey are rated from a low of '0' to a high of '5'.

The Spreckels Temple of Music and the Japanese Tea Garden, in the Music Concourse area, were rated in the 1976 Citywide Survey. Other rated structures throughout the Park include the Conservatory of Flowers, the Sharon Building, the North (Dutch) Windmill, the Park Emergency Hospital, the Beach Chalet, and the Millwright's House.

IMPACTS

SIGNIFICANCE CRITERIA

A project is normally found to have a significant effect on the environment if it will substantially disrupt or substantially adversely affect a property of historic significance. California Environmental Quality Act (CEQA) Section 21084.1 states "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." A "historical resource" is defined as one that is listed in, or determined eligible for listing in, the California Register of Historical Resources, one that is identified as significant in a local register of historic resources, such as Article 10 of the San Francisco Planning Code, or one that is deemed significant due to its identification in an historical resource survey meeting the requirements of Public Resource Code Section 5024.1(g). A resource that is deemed significant due to its identification in an historical resource survey meeting the requirements of Public Resource Code Section 5024.1(g), is presumed to be historically significant unless a preponderance of evidence demonstrates otherwise.

A "substantial adverse change" is defined by CEQA Guidelines Section 15064.5 as "demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

PROJECT EFFECTS

The proposed Phase I Underground Parking Facility and surface improvements to the Music Concourse Bowl would involve the removal and reconstruction of land features, vegetation, trees, structures, and roads as well as the construction of associated ramps. Existing topography, spatial relationships, vegetation, trees, and structures removed and/or damaged during construction would be replaced and rehabilitated according to the existing Music Concourse and Park site plan. Phase I would also construct several above-ground features including: stairwell railings, pedestrian ramps, and ventilation shafts. Those new elements would be confined to specific areas within the Park including the Music Concourse area, Kennedy Drive, the Tenth Avenue entrance, Academy Drive. The Phase II Underground Through Street would change conditions at Eighth Avenue/Kennedy Drive area, the Rhododendron Dell and Middle Drive East area. These alterations would potentially impact two historical resources including the proposed Golden Gate Park Historic District (National Register) and the Francis Scott Key Memorial (San Francisco Landmark No. 96). The Music Concourse Bowl and the John McLaren Rhododendron Dell, resources potentially eligible for the California Register would also be affected. The Japanese Tea Garden and the Spreckels Temple of Music would not be materially altered or impaired by the proposed project.

Phase I — Underground Parking Facility and Concourse Surface Improvements

The proposed Underground Parking Facility would be constructed within the Music Concourse area and would consist of a subterranean, two-level garage beneath Tea Garden Drive between the New deYoung Museum and the Music Concourse, and the second beneath Academy Drive, between the California Academy of Sciences and the Music Concourse. A tunnel road that extends under the eastern end of the Music Concourse would connect the parking facility sections and would provide an entrance at the Park entrance located at the intersection of Tenth Avenue and Fulton Street. Another entrance ramp would be located along Academy Drive, just west of the Academy of Sciences. Each parking structure section would occupy a rectangular footprint, approximately 113 feet wide with the north garage extending approximately 620 feet long and the south garage extending approximately 710 feet long. The structures would be designed to support the replacement of landscaping and roads above.

A combination of stair, ramp and tunnel entrances would provide pedestrian access to the parking structures. The northern parking structure would include a total of two pedestrian entrances and the southern parking structure would include three pedestrian entrances. The project would include the reconstruction and renovation of the two easterly pedestrian tunnels and portals in their current location; circulation through the pedestrian tunnels would remain independent to meet current structural codes. Parking facility vehicle tunnels would pass below the pedestrian tunnels (see Figure 5, p. 11). The existing southwest pedestrian tunnel beneath Academy Drive could be reconstructed with restored portals, with pedestrian circulation through the upper level of the parking facility.

A variant to the southwest pedestrian tunnel is also being considered that would replace the pedestrian tunnel with a new walkway at the surface above the parking facility. The north tunnel portal at the Concourse Bowl would be rebuilt in its current location after construction of the parking facility and would remain as an architectural feature in the Concourse Bowl without a pedestrian opening. The south portal would be removed and the existing depressed walkway that currently slopes down into the tunnel would be filled in. A new walkway at the surface would be added above the line of the existing tunnel and would connect across Academy Drive to the west end of the new pedestrian ramp leading down into the Concourse Bowl.

Pedestrian circulation in the parking facility would include walkways and ramps connecting the upper parking level with the lower Concourse level or bowl; those walkways would enter the Concourse Bowl from the southwest pedestrian tunnel and from two new entrances near the midpoint of the Concourse Bowl, west of the existing stairways at the north and south sides of the Concourse Bowl. Circulation within the parking facility would include stairs and elevators connecting the lower and upper parking levels, and stairway access that would provide access to the upper Concourse level. New ADA accessible ramps and existing stairs would connect the Bowl to the upper Concourse level.

The new stair and portal entrances would incorporate concrete paved ramps from the parking facility to grade level. The central stair pedestrian ramps would include recessed entrances, metal guard rails, and sloped retaining walls into their design. The aluminum pattern ceilings and the metal guard rail would diminish the integrity of the earth berm. The railing and obscured ceiling would not diminish the overall integrity of the Music Concourse, a resource potentially eligible for the California Register, and would not diminish the potential eligibility of Golden Gate Park Historic District for the National Register.

The changes to the Music Concourse stairways and berm would alter existing pedestrian paths and circulation patterns in the Music Concourse vicinity. However, the project would maintain the historic formal patterns of pedestrian walk ways, and the appearance of the portals as seen from the Music Concourse. Therefore, overall historic circulation patterns would remain intact and the changes would not have a substantial adverse impact on the potential eligibility of Golden Gate Park Historic District for the National Register, or the historical significance of the Francis Scott Key Monument, and would not be considered a significant impact on those resources.

Parking facility construction and incorporation of entrances within the existing pedestrian tunnels would require the removal and reconstruction of all three pedestrian tunnels. While the pedestrian tunnels are not identified in the *Golden Gate Park Master Plan* or the Golden Gate Park National Register Nomination Form as character-defining features of the Music Concourse, they are established elements of the Music Concourse pedestrian circulation. As such, reconstruction of the pedestrian tunnels would comply with the Se*cretary of the Interior's Standards for Rehabilitation*, which state "new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment." As identified in the California Environmental Quality Act (CEQA) Guidelines § 15064.5(b)(3), "[g]enerally, a project that follows the *Secretary of the Interior's Guidelines for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation*... shall be considered as mitigated to a level of less than a significant impact on the historical resource." As such, reconstruction of the pedestrian tunnels would not be considered a significant adverse impact to historic resources.

The proposed southwest pedestrian tunnel variant would require the permanent removal of the southwest pedestrian tunnel and south portal in addition to other changes required by Phase I, including the addition of (2) pedestrian garage entry ramps and reconstruction of the existing central stairs. The temporary removal of soils, vegetation, and specific statues and monuments also would be required. Existing land features, vegetation, statues and monuments, and stairs removed for construction would be replaced identical to their current configuration. A new paved pathway and pedestrian ramp would descend from the rim to the floor of the Music Concourse Bowl in the southwest corner of the Music Concourse. New grading and a pathway rising to Academy Drive would be constructed at the former location of the south portal outside the Music Concourse boundary. The north portal of the southwest tunnel would be retained and the opening enclosed with a concrete wall.

The pedestrian tunnel is directly associated with improvements made to the Music Concourse around the turn of the century and is a character defining feature. This proposed variant would remove or destroy an original architectural feature associated with the Music Concourse, an important cultural precinct within Golden Gate Park. Removing the tunnel and eliminating the subterranean pathway would alter the spatial orientation and the circulation pathway between the Music Concourse to the Shakespeare Garden. The underground pathway establishes a pedestrian link between two park features. The proposed alterations would appear to violate the *Secretary's Standards for Rehabilitation* 1,2, and 5 and would diminish the integrity of Golden Gate Park and the Music Concourse.

The pathway and ramps would be constructed of concrete paving. The new ramp would ascend the earth berm utilizing diagonal switchbacks similar to other ramps in the Music Concourse. The introduction of the new pedestrian element would be compatible with *Secretary's Standard* 9 for new additions. While the ramp would alter the existing earth berm, it would not destroy materials, features, and spatial relationships that characterize the Music Concourse. Of similar construction and size to other ramps in the Music Concourse, the new feature would be compatible with the historic materials, features, size, scale of other features in the Music Concourse Bowl.

In the context of the overall Music Concourse landscape, the proposed changes would be minor, and would not materially impair the potential significance of the resource. Enough features would remain intact and the Music Concourse would retain important aspects of integrity including design, setting, and feeling for the resource to be eligible for listing in the *California Register*. With a few exceptions, character-defining features such as the shallow bowl and earth berm, trees, lawns, pedestrian paths, stairs, two pedestrian tunnels, and the Spreckels Temple of Music would remain mostly intact. From most vantage points, the overall spatial distinction, setting, and views within the Music Concourse would remain unchanged. The Music Concourse also would maintain its orientation to the Park and other buildings and component features such as the Rhododendron Dell. Finally, the new proposed circulation path would maintain the link between the Music Concourse and the Shakespeare Garden. Therefore, the variant would not have a significant adverse impact on historic resources.[5]

The proposed aluminum and glass garage attendant booth for the parking facility would also be considered potentially incompatible with other Park features. However, the booth would be set back within the parking facility's portal. Therefore, its impact on historic resources would be considered inconsequential.

The Underground Parking Facility would include a ventilation system incorporating three street-level air intake shafts and two ventilation structures around the Music Concourse area (see Figure 4, p. 10). The ventilation structures would be about 14 feet in diameter and approximately 10 feet high. The ventilation structures would be constructed east of the Music Concourse within the existing tree line south of the intersection of Tea Garden and Kennedy Drives, near the Pershing Monument. Ventilation shafts, made of stainless steel and board formed concrete, are proposed to the south of Kennedy Drive adjacent to the deYoung Museum and to the north of the California Academy of Sciences, west of Academy Drive.

As these structures would be constructed within the tree line surrounding the Music Concourse, they would not be visible from the Music Concourse. These structures would not alter or divide the circulation of the Music Concourse nor would they have a physical impact on any identified historical resources in the Music Concourse area. In addition, the ventilation shafts would be located near existing trees and would not alter the Concourse or historic resources located in the vicinity. Any damaged or altered topography and vegetation occurring during construction of the ventilation structures would be replaced according to its current configuration. As such, these new ventilation structures would not have a significant adverse effect on historic resources.

Surface Improvements

The Concourse surface improvements would remove surface parking and rehabilitate the pedestrian character of the Music Concourse vicinity. The Underground Parking Facility would require the restoration of topography, monuments, and vegetation removed during construction. The project would use a cut and fill approach.

The landscape plan concept proposed for the Music Concourse vicinity would preserve the basic configuration, layout, and landscaping of the Music Concourse and surrounding landscape. Surface improvements would include fill, paving, planting, and site furnishings designed to address: the replacement of soils and vegetation removed for construction; the removal of the surface parking areas; and the screening of entrance ramps. The design would be developed by the Concourse Authority and the Recreation and Park Department, and would be consistent with the *Golden Gate Park Master Plan*.

Existing Music Concourse parking areas, and parts of Academy and Tea Garden Drives would be removed. Academy and Tea Garden Drives would be narrowed and restored to a condition similar to their early 20th Century configuration. The roadways would consist of standard asphalt construction and might include special paving treatments at pedestrian crosswalks. The paved pathway at the eastern end of the Concourse would be re-paved in its existing location.

Turf meadows and vegetation would replace parking areas and meadow areas removed for construction. At the eastern end of the Concourse, the meadow would be graded to match the existing profile. Existing hedges around the Concourse would be preserved where possible and replaced in-kind if removed or damaged during construction. Landscaping including additional turf, shrubs, perennials, and/or evergreen hedges, is proposed along the roadways. Some of the reclaimed areas along the roadways in front of the deYoung Museum and California Academy of Sciences would be incorporated into the museum's design.

The surface improvements, including the narrowing of roadways, addition of new landscaped open space, and repairs to existing stairways, fountains, paths and paving, would occur after completion of the Underground Parking Facility and would be undertaken by the Golden Gate Park Concourse Authority in cooperation with the Recreation and Park Department. The Golden Gate Park Concourse Authority would make improvements to all features and surfaces affected by the construction of the parking facility; other improvements would be made by the Recreation and Park Department, as described in the Golden Gate Park Master Plan.

Where possible, Music Concourse monuments and statues would be preserved and protected in place. Several monuments including the Key, Robert Emmet, and Leonidas would be removed during construction and returned to their original locations. The Grant and Serra statues would be removed during construction activities and would be returned to new locations in the Music Concourse after construction of the Underground Parking Facility and new roadway alignment. The Grant monument would be approximately 15 feet to the southwest from its current location to allow a safe distance between the statue and the new alignment of the roadway at the east end of the Music Concourse (see Figure 3, p. 7). The Serra Monument would be approximately 45 to 50 feet northwest of its current location, in the new island between the new roadway alignments at the northeast end of the Music Concourse (see Figure 3, p. 7, and Figure 16, View Southwest from Tea Garden Drive near Kennedy Drive, p. 53). Temporary removal or relocation of these monuments would not materially alter nor adversely affect their historical significance and would not have a significant adverse impact on historical resources.

Overall, the surface improvements to the Music Concourse would not be considered significant adverse impacts to the potential Golden Gate Park Historic District, the Music Concourse Bowl, or the Key Monument, a designated City landmark.

Phase II — Underground Through Street

Phase II would be an Underground Through Street, ramping down at Eighth Avenue at Kennedy Drive and extending beneath the east end of the Concourse and alongside the east side of the California Academy of Sciences where it would ramp up to Middle Drive East. The two-lane road would follow a path southeast of the Music Concourse with ramp approaches and concrete portal entries at each end.

Access to the Eighth Avenue ramp would be provided by an extension of the Eighth Avenue entry road across Kennedy Drive. The new road would cut through an existing grove of trees and shrubs on the edge of the John McLaren Rhododendron Dell. The Middle Drive East ramp would emerge along an existing service road that would intersect Middle Drive East.

Both entrance ramps would be designed to minimize the impact on grading, vegetation, and views in the Park incorporating sloped and battered concrete retaining walls. Several monuments, including the Pershing, Goethe & Schiller, and the Robert Burns statues would be removed during construction of the through road and returned to their original locations. Temporary removal or relocation of these monuments would not materially alter nor adversely affect their historical significance and would not have a significant adverse impact on historical resources.

Construction of the north leg of the Underground Through Street would require excavation and removal of vegetation, parts of Academy Drive, pathways, and sidewalks. The entry ramp would directly affect the windbreak of trees dividing the Rhododendron Dell from Kennedy Drive and the Music Concourse area. A new roadway cut, sidewalks and a four-way intersection would be established at Eighth Avenue and Kennedy Drive with the new entry ramp south through the northwest corner of the Dell. Soil, vegetation, pathways, and parts of Academy Drive removed in this process would be replaced with new plantings, generally in similar materials and configuration.

The construction of the south leg of the Underground Through Street would include the removal of soil and vegetation immediately east of the existing Academy of Sciences service road. Trees and shrubs that would be removed for construction would be replaced. The new Middle Drive East entry ramp adjacent to the service road would include an earthen berm to shield the entry ramp road from the adjacent meadow.

Construction of the Underground Through Street would alter important features of Golden Gate Park. Specifically, the Kennedy Drive entry ramp and tunnel route would require the removal of an historic windbreak grove and would change the spatial organization of the Music Concourse and Rhododendron Dell (both eligible for individual listing on the National Register). Historic vegetation, including Cypress and Pine overstory and windbreak shrubs would be removed and rare spruce, holly and rhododendrons at the edge of the Rhododendron Dell could also be affected. The windbreak is currently under rehabilitation following severe storm damage, but remains a prominent feature of the Music Concourse vicinity and a buffer around the Rhododendron Dell. The modifications proposed during this Phase for the existing vicinity of the windbreak, Music Concourse and Rhododendron Dell would not be substantial enough to diminish the significant features of the Park. Therefore, the alterations would not materially impact the overall significance of Golden Gate Park as an historic resource.

The proposed Underground Through Street, including the ramp south of Kennedy Drive, would diminish primary aspects of Rhododendron Dell's integrity, including design, setting, and spatial relationships, by adding a new roadway in a landscaped area. These changes would directly impact physical characteristics that justify the Rhododendron Dell's potential inclusion in the *California Register*. Proposed changes to the Rhododendron Dell may also violate the Secretary's Standards No. 2 and No. 9 which state," a) avoiding the removal of distinctive materials or alteration of features, spaces, and spatial relationships; and b) introducing new additions or related new construction that will not destroy historic materials, features or spatial relationship that characterize a property." Phase II of the project would therefore cause a substantial adverse change in the individual significance of the Rhododendron Dell for listing in the *California Register*, as an historic resource. Chapter IV, Mitigation Measures, identifies measures to reduce the adverse effects on the Rhododendron Dell, but would not eliminate the significant adverse impact.

Other Proposition J Transportation Improvement Program Projects

Intra-Park Shuttle

The Intra-Park Shuttle would provide vehicular shuttle service throughout Golden Gate Park using existing roadways. This is expected to result in a slight reduction of vehicular traffic in the Park. The Intra-Park Shuttle would introduce new signage for shuttle stop locations that would be consistent with recommendations for the size, location and appearance of signage identified in the Golden Gate Park Master Plan. As the shuttle service would not physically alter or otherwise impair the location, materials, or integrity of individual historical resources in the Park it would not have a significant adverse impact on historical resources within the Park, nor the significance of the Park as a whole.

Traffic Calming

Proposed traffic calming measures would consist of changes in pathway widths and other changes to existing circulation routes, signage, and other measures that would slow or reduce traffic throughout the Park. These proposed measures, as part of the Golden Gate Park Concourse Authority Projects, would not have a direct, physical effect on historical resources in Golden Gate Park. Nor would they adversely affect the significance of historical resources within the Park, or the historical significance of the Park as a whole.

Parking Management

As part of the Golden Gate Park Concourse Authority Projects, Parking Management would include timed parking and other improvements identified to limit commuter parking and provide safe and reliable parking within the Park for recreational users. Parking management measures would not have a direct physical impact on identified historical resources in Golden Gate Park. As such, the Parking Management measures would not have a significant adverse effect on historic resources.

Bicycle and Pedestrian Improvements

Bicycle and Pedestrian Improvements to be undertaken by the Golden Gate Park Concourse Authority would be consistent with those identified in the Golden Gate Park Master Plan. The improvements would include repair and maintenance of existing paths, improved signage to identify bicycle and pedestrian paths, and construction of new dedicated circulation routes for bicycle and pedestrian use. These improvements would not be anticipated to adversely impact individual historical resources or the historical significance of Golden Gate Park as a whole.

Road Closures

Future road closures in Golden Gate Park would occur on existing roadways and would be intended to reduce vehicular traffic in the park. Road closures would not materially alter or impair historical resources in Golden Gate Park and would not be considered a significant adverse impact to historic resources.

MUNI Service Improvements

MUNI service improvements would occur on existing roadways and would be intended to improve transit service to the Park. These service improvements would be undertaken by MUNI and would be individually analyzed to assess potential environmental impacts. It is not anticipated that such improvements would have a significant adverse impact on historical resources in Golden Gate Park.

Cultural Shuttle

A Cultural Shuttle, as identified in Proposition J, would provide a transit link between cultural institutions and facilities outside Golden Gate Park with those inside the Park. Planning for this shuttle is in preliminary stages and may require additional review to assess potential environmental impacts. However, as the Cultural Shuttle would operate on existing roadways and would be anticipated to use signage and any required structures for shuttle stops that are consistent with the Golden Gate Park Master Plan, it is not anticipated that the Cultural Shuttle would have a significant adverse effect on historical resources.

CUMULATIVE IMPACTS

Other projects are proposed in the Music Concourse vicinity; that could affect historic resources: the under-construction New deYoung Museum and the proposed Academy of Sciences. Together with the GGPCA Projects, these projects could cumulatively affect existing and potential historic resources including the Music Concourse, the Rhododendron Dell, and/or Golden Gate Park Historic District.

The potential historic resource impacts of the New deYoung Museum were addressed in the New deYoung Museum Final Environmental Impact Report. The potential impacts of the proposed GGPCA Projects and the deYoung study reached conclusions that these projects would not adversely impact the Music Concourse, or the potential Golden Gate Park Historic District. Phase II would threaten the eligibility of the Rhododendron Dell.

The Academy of Sciences project is currently undergoing environmental review. Information on the Academy of Sciences project indicates that the removal of the current complex comprised of twelve buildings. The age of these buildings suggests that some structures will be individually eligible for the California Register and the project could have a significant adverse effect on those historical resources. However, at present the proposed new building would occupy the existing footprint and would maintain existing setbacks and volumes, suggesting compatibility with the existing Park and Music Concourse landscapes. The new California Academy of Sciences building would also maintain the existing use of the Academy at the current site. Given the previously discussed conditions, it is unlikely that the California Academy of Sciences project would adversely impact the historic integrity of the Music Concourse or Golden Gate Park.

These cumulative changes would retain important character defining features of Golden Gate Park, the Music Concourse, and the Rhododendron Dell. The individual compatibility of each project and the continuity of use in the Music Concourse vicinity suggest that the cumulative impact of the projects would not threaten the California Register eligibility of Golden Gate Park, the Music Concourse, or the Rhododendron Dell.

NOTES — Historic Resources

[1] This section summarizes the report prepared by Page & Turnbull, Inc., *Golden Gate Park Proposed Underground Parking Structure: Evaluation of the Potential Effect on Historical Resources, Golden Gate Park, San Francisco,* December 13, 2002.

[2] National Register nomination, Section 7, p. 15.

[3] San Francisco Planning Department, *New deYoung Museum Final Environmental Impact Report*, Case No. 199.455E. Certified December 6, 2001.

[4] City and County of San Francisco Planning Department, *Golden Gate Park Draft Master Plan FEIR*, Table 27: Historic and Architectural Resources, July 9, 1998, p. 188.

[5] Page & Turnbull, Memorandum, *Golden Gate Park Music Concourse Underground Parking Structure, Music Concourse, Southwest Pedestrian Tunnel Removal - Project Alternative; Revised Findings and Conclusion,* December 11, 2002.

D. TRANSPORTATION[1]

SETTING

TRAFFIC

Regional Access

The primary regional access to Golden Gate Park is via State Route 1 (SR 1). In San Francisco, SR 1 runs on city streets, including Park Presidio Boulevard, Crossover Drive, 19th Avenue and Junipero Serra Boulevard, and connects with US 101 to the north and I-280 to the south.

To access the Music Concourse area from the north via Park Presidio Boulevard, vehicles are directed (by signs) to turn right onto Cabrillo Street, turn right onto 14th Avenue, turn right onto Balboa Street and then turn right onto Tenth Avenue. This routing is necessitated by the left-turn restrictions on Park Presidio Boulevard. To return to the north, vehicles can turn right from Fulton Street to Park Presidio Boulevard.

To access the project site from the south via 19th Avenue, vehicles turn right onto Irving Street or another east-west street south of the Park, King Drive or Fulton Street. To return to the south, vehicles use King Drive and turn left onto Crossover Drive/19th Avenue, or travel south on Ninth Avenue, right onto Kirkham Street or another east-west street and then turn left onto 19th Avenue.

To access the Music Concourse area from the east, vehicles use I-80 to US 101 (the Central Freeway) to the Fell Street off-ramp, and continue along Fell Street to Kennedy Drive or Kezar Drive to King Drive. To return to the east, vehicles can use Kennedy Drive or King Drive/Kezar Drive to Oak Street to Gough Street and the South Van Ness Avenue on-ramp to the Central Freeway.

Local Access

Cabrillo Street an east-west roadway that extends from Arguello Boulevard to the Great Highway, one block north of Golden Gate Park. Cabrillo Street has one travel lane in each direction, and 12-foot wide sidewalks on both sides of the street. Parking is generally provided along both sides of the street. The *San Francisco General Plan* identifies Cabrillo Street as a Citywide Bicycle Route.

Fulton Street is an east-west arterial that extends from the Civic Center area to the Great Highway, and runs along the northern edge of Golden Gate Park. In the vicinity of the Music Concourse, Fulton Street has two travel lanes in each direction, 10- to 15-foot wide sidewalks and two-hour parking on both sides of the street. The *San Francisco General Plan* identifies Fulton Street as a Major Arterial[2] in the Congestion Management Program (CMP) Network[3] and as a Transit Preferential Street (secondary transit street).[4]

Fell Street is an east-west arterial that runs between Market Street and Stanyan Street. West of Octavia Street, Fell Street operates one-way westbound only and forms a one-way couplet with Oak Street (eastbound), providing the primary east-west access across the northern section of the City. In the vicinity of Golden Gate Park, Fell Street has four travel lanes and on-street parking on both sides of the street. The *San Francisco General Plan* identifies Fell Street as a Major Arterial in the CMP Network and as part of the Metropolitan Transportation System[5] (MTS) Network.

Oak Street is an east-west arterial that runs between Stanyan Street and Market Street. Between Stanyan Street and Franklin Street, Oak Street operates one-way eastbound only and forms a one-way couplet with Fell Street (westbound). In the vicinity of Golden Gate Park, Oak Street has four travel lanes and on-street parking on both sides of the street. The *San Francisco General Plan* identifies Oak Street as a Major Arterial in the CMP Network, part of the MTS Network and on the Bay, Ridge and Coast Trail.

Lincoln Way is an east-west arterial that extends between Arguello Boulevard and the Great Highway, and runs along the southern border of Golden Gate Park. In the vicinity of the Music Concourse, Lincoln Way has two travel lanes in each direction, with on-street parking and 5 to 12 feet wide sidewalks on either side of the street. In the westbound direction, on-street parking is restricted during the weekday PM peak period (4:00 to 6:00 PM) to allow for an additional travel lane. The *San Francisco General Plan* identifies Lincoln Way as a Major Arterial in the CMP Network, part of the MTS Network and a Transit Preferential Street (secondary transit street).

Irving Street is an east-west roadway that extends between Arguello Street and the 48th Avenue, and runs one block south of Golden Gate Park. In the vicinity of the Music Concourse, Irving Street generally has two travel lanes in each direction, with on-street parking and 5 to 12 feet wide sidewalks on both sides. In the westbound direction, on-street parking is restricted during the weekday PM peak period (4:00 to 6:00 PM) to allow for an additional travel lane. The *San Francisco General Plan* identifies Irving Street as Transit Preferential Street (transit oriented) and as part of the Citywide Pedestrian Network[6] (neighborhood commercial street).

Stanyan Street/Stanyan Boulevard is a north-south roadway that extends between Geary Boulevard and Belgrave Avenue, and forms the eastern edge of Golden Gate Park. Adjacent to the Park, Stanyan Street has two lanes in each direction, with on-street metered parking provided on both sides of the street. The *San Francisco General Plan* identifies Stanyon Street/Stanyan Boulevard as a Secondary Arterial and a Transit Preferential Street (secondary transit).

Arguello Boulevard is a north-south roadway that operates to the north and south of Golden Gate Park. At the northeast corner of the Park, Arguello Boulevard provides a vehicular entrance into the Park, with a direct connection to Conservatory Drive East and West. At the southeast corner of the Park, Arguello Boulevard runs between Irving Street and the Park (but no longer connects with Kezar Drive). In the vicinity of the Park, Arguello Boulevard has one travel lane in each direction, with on-street metered parking generally provided on both sides of the street. The *San Francisco General Plan* identifies Arguello Boulevard as a part of the Citywide Pedestrian Network (neighborhood commercial street), on the Bay, Ridge and Coast Trail and a Citywide Bicycle Route.

Eighth Avenue and Tenth Avenue are north-south roadways that provide access to the northeast portion of Golden Gate Park, with direct connection to Kennedy Drive. Both Eighth and Tenth Avenues have one travel lane in each direction, with on-street parking generally provided on both sides of the street (no parking is permitted along the eastern side of Tenth Avenue within the Park from 7:00 AM to 9:00 AM on weekdays). Outside of the Park, 15-foot wide sidewalks are provided on both sides of each street, whereas inside the Park, there are 4- to 6-foot wide pedestrian paths.

Ninth Avenue is a north-south roadway that provides access to the southeast portion of Golden Gate Park, with direction connection to King Drive. South of the Park, Ninth Avenue has one travel lane in each direction, with metered on-street parking and 12-foot wide sidewalks on both sides of the street. The *San Francisco General Plan* identifies Ninth Avenue as a part of the Citywide Pedestrian Network (neighborhood commercial street).

Park Presidio Boulevard is a north-south arterial that extends from the north side of Golden Gate Park to the Golden Gate Bridge and US 101 in the Presidio. Park Presidio Boulevard has three travel lanes in each direction, and left-turns are prohibited to cross-streets. On-street parking and sidewalks are not provided on either side of the street. The *San Francisco General Plan* identifies Park Presidio Boulevard as a Major Arterial in the CMP Network and a as a part of the Citywide Pedestrian Network (neighborhood commercial street).

19th Avenue is a north-south arterial that extends south of Golden Gate Park to Junipero Serra Boulevard, near the San Francisco County/San Mateo County line. In general, 19th Avenue has three travel lanes in each direction, with restricted left-turns to cross-streets. In the vicinity of the Golden Gate Park, 19th Avenue has parking and sidewalks on both sides of the street. The *San Francisco General Plan* identifies 19th Avenue as a Major Arterial in the CMP Network.

Crossover Drive is a north-south arterial in Golden Gate Park. Crossover Drive has three travel lanes in each direction. Sidewalks and on-street parking are not provided along Crossover Drive. The *San Francisco General Plan* identifies 19th Avenue as a Major Arterial in the CMP Network.

John F. Kennedy Drive (Kennedy Drive) is a recreational street within Golden Gate Park and provides the primary east-west access across the northern side of the Park. Kennedy Drive has one travel lane in each direction, except for the segment between Eighth and Tenth Avenues which has two travel lanes in each direction. In the vicinity of the Music Concourse, on-street parking is generally provided along both sides of the street. Pedestrian paths or sidewalks are also provided on both sides of the roadway, and vary in width (generally 8 to 15 feet wide). The *San Francisco General Plan* identifies Kennedy Drive as a Recreational Street.[7]

Kezar Drive provides a connection between Fell/Oak Streets and Lincoln Way through the southeast corner of Golden Gate Park. Kezar Drive has two lanes in each direction, with 4-foot wide sidewalks on both sides of the street. On-street parking is provided along both sides of Kezar Drive between Lincoln Way and Waller Street. The *San Francisco General Plan* identifies Kezar Drive as a Major Arterial in the CMP Network and as part of the MTS Network.

Martin Luther King, Jr. Drive (King Drive) is a recreational street within Golden Gate Park and provides the primary east-west access across the south side of the Park. Near the Music Concourse, King Drive is a two-way roadway, with one travel lane in each direction. On-street parking is generally provided along both sides of King Drive, except between Middle Drive East and Lincoln Way which has a No Parking restriction between 6:00 AM and 9:00 AM. Pedestrian paths or sidewalks are provided along both sides of the street (generally 8 to 15 feet wide). The *San Francisco General Plan* identifies King as a Recreational Street.

Tea Garden Drive/Academy Drive are recreational streets within the Music Concourse that provide access to the Music Concourse attractions, including the deYoung Museum, CAS and the Japanese Tea Garden. Tea Garden Drive and Academy Drive are each one-way roadways that form a counterclockwise loop and provide a connection between Kennedy Drive and King Drive. Academy Drive has one travel lane and Tea Garden Drive has two travel lanes, and sidewalks are provided along the outside of each roadway. On-street parking is provided along the east side of Academy Drive; in addition, Academy Drive provides access to a separate on-street parking area within the Music Concourse.

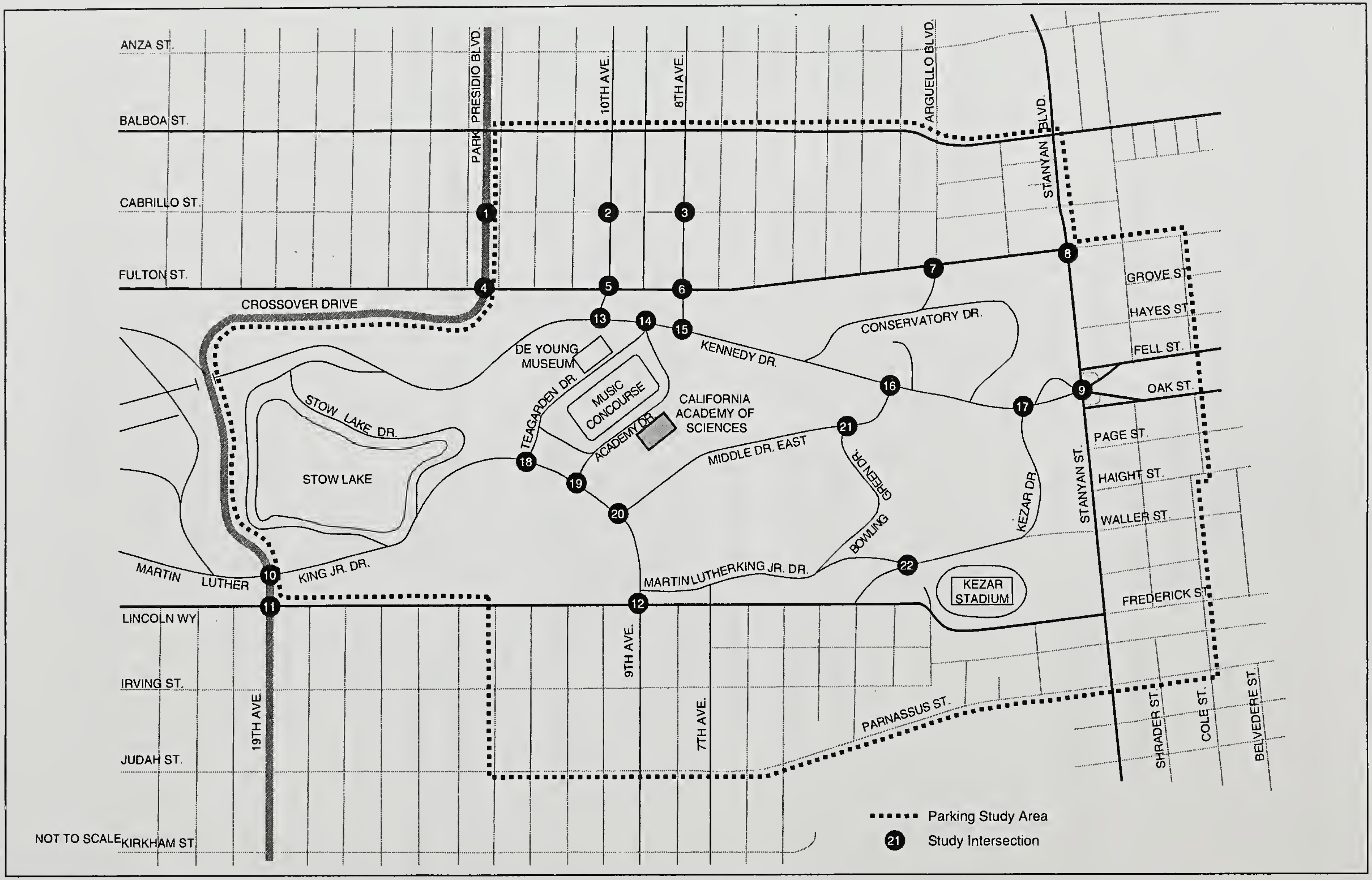
Middle Drive East is a recreational street within Golden Gate Park between King Drive and Kennedy Drive, and provides access to the south entrance of the CAS and the AIDS Memorial Grove. Middle Drive East has one lane in each direction, plus 3- to 8-foot wide sidewalks on both sides of the street. On-street parking is permitted along both sides of the street. The *San Francisco General Plan* identifies Middle Drive East as a Recreational Street.

Intersection Operating Conditions

The traffic analysis included 22 study intersections as locations likely to be affected by the proposed project (see Figure 24). Those intersections include most of the local intersections adjacent to the Music Concourse, plus those along main access routes to and from Golden Gate Park. Intersections more distant from the Music Concourse were not analyzed as part of this study, as project-related traffic would be dispersed among the many local streets farther from the site, and consequently would be less than at the study intersections.

The transportation study evaluated intersection operating conditions for the weekday PM peak hour (generally 5:00 to 6:00 PM), as this is the peak period of traffic volumes in the vicinity of the project site. However, the peak activity for recreational and cultural uses typically occurs on weekends; therefore, intersection operating conditions were also quantitatively evaluated for the Saturday midday and Sunday midday peak hours (generally 2:00 to 3:00 PM).

The study intersections outside the Park are controlled by traffic signals, except Tenth/Cabrillo and Eighth/Cabrillo which are STOP sign–controlled. The study intersections within the Park are all STOP sign-controlled, except King/Crossover and King/Kezar which are signalized. Operating characteristics of both signalized and unsignalized intersections are described by the concept of Level of Service (LOS). LOS is a qualitative description of an intersection's performance based on the average delay per vehicle. Intersection level of service ranges from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. LOS A through D are considered excellent to satisfactory service levels, and LOS E and LOS F conditions are unacceptable. The operating conditions for unsignalized intersections are presented for the



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SOURCE: EIP

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 24: TRANSPORTATION STUDY AREA AND TRANSIT SERVICE

worst approach, and an unsignalized intersection was considered to operate at unacceptable conditions if more than one approach operated at LOS E or F.

Table 1 presents the results of the intersection LOS analysis for the existing weekday PM, Saturday midday and Sunday midday peak hour conditions.

Weekday PM Peak Hour

During the weekday PM peak hour, all of the signalized study intersections operate acceptably (LOS D or better). In addition, the worst approach at the unsignalized intersections also operate acceptably, except at the intersections of Kennedy/Kezar and Kennedy/Middle Drive East. However, at both of these locations, as no other approaches operate at LOS E or F, the intersections would be considered to operate acceptably overall.

Saturday Midday Peak Hour

During the Saturday midday peak hour, all of the signalized study intersections operate acceptably, except the intersection of Fulton/Stanyan. In addition, the worst approach at all of the unsignalized intersections also operates acceptably, except at the intersection of Kennedy/Kezar. However, at this location, as no other approaches operate at LOS E or F, the intersection would be considered to operate acceptably overall.

Sunday Midday Peak Hour

During the Sunday midday peak hour, all of the signalized study intersections operate acceptably, except the intersection of Fulton/Stanyan. In addition, the worst approach at all of the unsignalized intersections also operate acceptably. Due to the Sunday closure of Kennedy Drive between Kezar Drive and Transverse Drive, four of the study intersections (Kennedy/Tenth, Kennedy/Concourse, Kennedy/Eighth and Kennedy/Middle Drive East) have no traffic volumes and therefore were not analyzed for intersection operating conditions during the midday peak hour. In addition, at the intersection of Kennedy/Kezar, there is no traffic on the eastbound (STOP-controlled) approach and the northbound/westbound approaches do not stop.

TABLE 1
INTERSECTION LEVEL OF SERVICE
EXISTING CONDITIONS

		Weekday PM		Saturday Midday		Sunday Midday	
Intersection	**Control**	**Delay**[1]	**LOS**	**Delay**[1]	**LOS**	**Delay**[1]	**LOS**
Cabrillo/Park Presidio	Signal	16.8	B	16.8	B	17.0	B
Cabrillo/Tenth[2]	STOP	11.9	B (eb)	9.4	A (eb)	9.5	A (wb)
Cabrillo/Eighth[2]	STOP	14.6	B (nb)	10.3	B (nb)	9.8	A (eb)
Park Presidio/Fulton	Signal	35.6	D	29.3	C	29.4	C
Fulton/Tenth	Signal	18.5	B	15.8	B	16.5	B
Fulton/Eighth	Signal	20.6	C	15.6	B	15.0	B
Fulton/Arguello	Signal	21.0	C	13.8	B	32.3	C
Fulton/Stanyan	Signal	47.2	D	**67.8**	**E**	**>80**	**F**
Kennedy/Stanyan	Signal	45.9	D	18.8	B	19.9	B
King/Crossover	Signal	38.5	D	34.5	C	35.9	C
Lincoln/Nineteenth	Signal	36.1	D	27.7	C	19.7	B
Ninth/Lincoln	Signal	46.9	D	26.3	C	13.5	B
Kennedy/Tenth[2]	STOP	15.1	C (eb)	11.6	B (eb)	–	–
Kennedy/Academy/Tea Garden[2]	STOP	28.7	D (wb)	14.0	B (wb)	–	–
Kennedy/Eighth[2]	STOP	18.0	C (wb)	11.0	B (wb)	–	–
Kennedy/Middle Drive East[2]	STOP	49.4	E (wb)	14.9	B (wb)	–	–
Kennedy/Kezar[2]	STOP	>50	F (eb)	>50	F (eb)	–	–
King/Tea Garden[2]	STOP	24.4	C (sb)	21.0	C (sb)	11.8	B (eb)
King/Academy[2]	STOP	8.1	A (eb)	8.9	A (eb)	8.2	A (eb)
King/Middle Drive East[2]	STOP	25.8	D (sb)	15.5	C (sb)	10.8	B (nb)
Middle Drive East/Bowling Green[2]	STOP	8.9	A (wb)	8.0	A (wb)	7.5	A (nb)
King/Kezar	Signal	14.1	B	7.7	A	10.2	B

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle. See Appendix E for the delay and LOS descriptions for signalized and unsignalized intersections.

[2] STOP sign-controlled intersection – delay and LOS presented for worst STOP-controlled approach. * indicates that a second approach also operates at LOS E/F.

At the Ninth/Lincoln intersection, the operating conditions during the three analysis periods were determined to be LOS D or better. However, both the northbound and southbound approaches have been observed to operate with substantial delays, resulting in queues that sometimes extend to the upstream intersections (these conditions usually occur on busy weekdays and weekends with good weather or events in the Park). Both the eastbound and westbound Lincoln Avenue approaches have high traffic volumes and operate with minimal delays. As a result, the average delay per vehicle, as calculated using the *HCM* methodology, is relatively low and the overall intersection operating conditions are acceptable.

TRANSIT

The San Francisco Municipal Railway (Muni) operates six bus lines and one light rail line in the vicinity of the Music Concourse, including the 5-Fulton, 21-Hayes, 28-Ninteenth Avenue, 31-Balboa, 44-O'Shaughnessy and 71-Haight/Noriega bus lines, plus the N-Judah light rail line. The 44-O'Shaughnessy provides direct access into Golden Gate Park and the Music Concourse area. In the Music Concourse, the northbound bus stop is adjacent to the California Academy of Sciences and the southbound bus stop is located adjacent to the deYoung Museum site. The other bus lines and the light rail line operate along the city streets to the north and south of the project site. According to recent field observations, the Muni 44-O'Shaughnessy currently has available capacity in the vicinity of the project site during both weekdays and weekends.

No daily regional transit service operates in the vicinity of the project site. Regional transit operators, including AC Transit (East Bay), BART (East Bay and Peninsula), Caltrain (South Bay and Peninsula), Golden Gate Transit (North Bay) and SamTrans (South Bay and Peninsula) are accessible via Muni bus and light rail lines. Connections to AC Transit, Golden Gate Transit and SamTrans can be made at the Transbay Terminal (via the Muni 5-Fulton line), to BART at the Civic Center station (via the 5-Fulton, 21-Hayes or N-Judah lines), and to SamTrans at the Stonestown Galleria shopping center (via the 28-19th Avenue line).

PARKING

Existing public parking conditions were examined within a parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east, as shown in Figure 24. The parking occupancy was determined for the weekday, Saturday and Sunday midday period (generally between 1:00 and 3:00 PM).

The parking study area was divided into four sub-areas: north of Golden Gate Park, south of Golden Gate Park, east of Golden Gate Park and within the eastern half of the Park. Parking supply and occupancy within the Park includes both on-street curb parking and off-street lots that are available for public parking on weekdays or weekends, including Kezar Stadium, McLaren Lodge, Stow Lake, Children's Playground and the County Fair Building. Table 2 presents a summary of the parking supply and occupancy for the three time periods.

TABLE 2
EXISTING PARKING CONDITIONS

Time Period	North	East	South	East Park	Total
Weekday Midday					
Supply	2,137	1,404	2,317	3,095	8,953
Occupancy	1,596	1,241	2,083	1,825	6,745
% Occupied	*75%*	*88%*	*90%*	*59%*	*75%*
Saturday Midday					
Supply	2,137	1,404	2,317	3,095	8,953
Occupancy	1,711	1,318	2,137	2,502	7,668
% Occupied	*80%*	*94%*	*92%*	*81%*	*86%*
Sunday Midday					
Supply[1]	2,137	1,404	2,317	2,184	8,042
Occupancy	1,918	1,309	2,198	1,894	7,319
% Occupied	*90%*	*93%*	*95%*	*87%*	*91%*

Source: Wilbur Smith Associates

Notes:

Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

[1] On Sundays, a portion of the parking supply within Golden Gate Park is not available due to roadway closures.

North of Golden Gate Park

The on-street parking north of the Park in the study area is generally unrestricted, except at the eastern and western ends which has residential permit parking with 2-hour parking limits on Monday through Friday (area "N" and "L"). Overall, there are about 2,140 spaces, which are well utilized, particularly on Saturdays and Sundays. Parking occupancy is higher on Sundays (90 percent versus 84 percent), reflecting the loss of parking supply in the Park due to the Sunday road closures (including Kennedy Drive and Conservatory Drive).

East of Golden Gate Park

East of the Park, on-street parking to the north of Oak Street and to the south of Haight Street is within residential permit districts (areas "L" and "J", respectively). In both areas, the on-street parking has two-hour time limits on Monday through Friday. Between Oak and Haight Streets, on-street parking is generally unrestricted. Overall, there are about 1,400 spaces, which are almost completely occupied during all three periods. Parking occupancy on weekdays is relatively high during the midday period (88 percent) due to the parking demand associated with Saint Mary's Hospital and the University of San Francisco.

South of Golden Gate Park

South of the Park, on-street parking to the west of Eighth Avenue is generally unrestricted; on-street parking to the east of Eighth Avenue is within a residential permit district with two-hour parking limits on Monday through Friday (area J). West of Seventh Avenue, on-street parking along Irving Street is metered (approximately 140 spaces). The parking supply in this area includes three publicly-accessible off-street parking lots, primarily serving the Ninth and Irving commercial area. Overall, there are about 2,320 on-street parking spaces within the study area, which are almost completely occupied on weekdays, Saturdays and Sundays. Since the Sunday road closures are concentrated along the north side of the Park, the parking demand south of the Park is similar on both Saturdays and Sundays.

Within Golden Gate Park

In the study area (i.e., east of Crossover Drive), the on-street parking in the Park is mostly unrestricted. However, some parking along Bowling Green Drive (between King Drive and Middle Drive East) has three-hour time limits on weekdays. Except for the Music Concourse area and the Kezar parking lot, all parking within the Park is free of charge. At the Music Concourse, there are about 200 metered parking spaces (paid parking on weekends and holidays only). Overall, there are approximately 3,100 parking spaces within the Park east of Crossover Drive, of which about 910 are not accessible on Sundays due to the roadway closures. The parking occupancy of the available spaces is substantially higher on Sundays, reflecting the decreased supply within the Park. In addition, there is a tour bus parking lot, west of the Bandshell with capacity for 10 to 12 tour buses.

Outside Study Area, West of Crossover Drive

Within the Park west of Crossover Drive, there are about 2,760 on-street and off-street parking spaces (excluding the Reforestation Center). On Saturdays, Middle Drive West between King Drive and Transverse Drive is closed, which reduces the parking supply to about 2,430 spaces. The parking supply is about 10 percent occupied during the weekday midday, 36 percent occupied during the Saturday midday, and 30 percent occupied during the Sunday midday. It should be noted that there are some areas in the Park west of Crossover Drive that are very heavily used (e.g., along Kennedy Drive between Transverse Drive and 36th Avenue and on King Drive near the Polo Field), and visitors to these areas may have to park somewhat further away. However, there are substantial areas that have low parking demand. As a result, overall parking in the area west of Crossover is less than 40 percent occupied.

Pedestrians and Bicyclists

Sidewalks and pedestrian paths are provided throughout much of Golden Gate Park and the surrounding streets. Along Kennedy Drive, Tea Garden Drive and King Drive adjacent to the Music Concourse, the sidewalks and paths are generally 8 to 15 feet wide, whereas the sidewalks along the Eighth and Tenth Avenue entrances to the Park are only 4 to 6 feet wide.

At the southern Ninth Avenue entrance, the west and east paths are 4 to 6 feet wide. There are undercrossings at the corners of the Music Concourse to allow pedestrians and bicyclist to cross under Tea Garden Drive and Academy Drive.

Overall, pedestrian conditions are generally acceptable throughout the Park. The sidewalks, paths and crosswalks are able to accommodate typical pedestrian levels. At the intersections of Kennedy/Tea Garden/Academy and Kennedy/Eighth, however, the configuration of the intersections result in the potential for conflicts between pedestrians and vehicles. At both of these "T" intersections, one of the Kennedy Drive approaches does not stop, and it can be difficult for pedestrians to cross the entire right-of-way. In addition, the narrow sidewalks along the Eighth and Tenth Avenue entrances to the Park somewhat impede pedestrian travel.

There are signed bicycle routes in and around Golden Gate Park in the vicinity of the Music Concourse. These include east-west routes on Cabrillo Street (#20), Kennedy Drive/Panhandle (#30) and Page Street (#32), and north-south routes on Arguello Boulevard/Conservatory Drive/Bowling Green Drive/Sixth Avenue (#65), 16th Avenue (#69) and 23rd Avenue/20th Avenues (#75). In addition, there are several connector routes between the major north/south and east/west routes, including the #330, #765 and #365. Within the Park, the bicycle routes are either exclusive paths or along the streets. In the vicinity of the Music Concourse, no signed bicycle routes or paths are provided along King Drive, Middle Drive East, Stow Lake Drive, Academy Drive or Tea Garden Drive.

In general, bicycle conditions are acceptable throughout the Park and on the nearby streets. Most of the streets have sufficient right-of-way to allow bicyclists and vehicles to share the roadway. Inside the Park, bicyclists sometimes use the pedestrian paths, which can result in conflicts between bicycles and pedestrians movement. When roadways within the Park are closed to vehicular traffic on Sundays, pedestrians, bicyclists, rollerbladers and others share the street right-of-way.

IMPACTS

SIGNIFICANCE CRITERIA

Intersections

The operational impact on signalized intersections is considered significant when project-related traffic causes the level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. For the purpose of this report, the operational impact on unsignalized intersections is considered significant when project-related traffic causes the level of service to deteriorate from LOS D or better for LOS E or F at more than one approach. The project may result in significant adverse impacts at intersections that operate at LOS E or F under Existing condition depending upon the magnitude of the project's contribution to the worsening of the average delay per vehicle. In addition, the project would have a significant adverse effect if it would cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.

Parking

Parking supply is not considered to be a part of the permanent physical environment in San Francisco.[8] Parking conditions are not static, as parking supply and demand vary from day to night, day to day, month to month, etc. Hence the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Therefore, parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA.

Parking deficits may be associated with secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality, or noise effects caused by congestion. However, as noted above, in the experience of San Francisco transportation planners, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit, taxis, bicycles or travel by foot) and the relatively dense patterns of urban development, may induce drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's "Transit First" policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the proposed project would likely be minor and difficult to predict.

Thus, a parking shortage is not considered to be a permanent condition and is also not considered to be a physical environmental impact even though it is understood to be an inconvenience to drivers. Therefore, the creation of or an increase in parking demand resulting from a proposed project that cannot be met by existing or proposed parking facilities would not itself be considered a significant environmental effect under CEQA. In the absence of such physical environmental impacts, CEQA does not require environmental documents to propose mitigation measures solely because a project is expected to generate parking shortfalls.

Transit

The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the weekday PM peak hour.

Pedestrians and Bicyclists

The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas. The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.

Construction

Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

METHODOLOGY

In general, parking facilities are considered to accommodate vehicle trips generated by other land uses. Traffic generators in the area would include the institutions in the Music Concourse area and other Park activities. Traffic and parking demand generated by these uses could potentially be accommodated in the proposed parking facility. The project would therefore cause traffic to shift from other parking areas, thus resulting in changes to traffic routes and distribution of traffic and parking in the area.

Baseline Conditions

The data collection for Existing Conditions generally reflects summer/fall 2001 conditions which do not include the travel demand associated with the former deYoung Museum (the museum was closed in January 2001) or the New deYoung (which is currently under construction). In addition, the Academy of Sciences (CAS) is proposed to be undergoing reconstruction and it is anticipated that there would be an increase in the number of CAS visitors in the future. A separate baseline condition was developed to allow for a comparison of transportation conditions without and with the proposed underground parking facilities and other project Transportation Implementation Programs (TIP).

Baseline conditions are defined as the Existing Conditions plus the travel demand associated with the New deYoung and the additional travel demand associated with the reconstruction of the CAS. In addition to the new visitor trips, the analysis assumes the anticipated increase in staff at the two new institutions. It is not anticipated that the trips associated with the staff would occur during the three analysis time periods; however, the parking demand associated with staff were included in the parking demand.

Trip Generation

Travel demand associated with both the New deYoung and the new CAS was based on historical attendance levels, existing travel characteristics and anticipated future attendance levels. For the New deYoung museum, an attendance level of 600,000 visitors was assumed. For the new CAS, an increase in attendance from about 800,000 visitors to 1.4 million visitors was assumed, based on information provided by the institutions. For both institutions, the average day attendance plus one standard deviation was used as the study attendance levels, to reflect the variability in attendance levels (due to major exhibits, school functions, etc.).

Mode Split

The mode split (percentage of visitors who drive, take transit, walk or use other means to travel to and from the institutions) was based on data provided by the Corporation of the Fine Arts Museums, the California Academy of Sciences, and the San Francisco Planning Department's *Interim Transportation Impact Analysis Guidelines* (from January 2000). Overall, about 66 percent of the trips would be by auto, 8 percent by transit, 18 percent by walk and 8 percent by other modes. Combined, the New deYoung and new CAS would generate about 117 vehicle trips during the weekday PM peak hour, 595 vehicle trips during the Saturday midday peak hour and 547 vehicle trips during the Sunday midday peak hour.

Trip Distribution/Assignment

Based on information from the *Interim Transportation Impact Analysis Guidelines* and from visitor surveys at the institutions, it was estimated that about 15 percent of the new trips generated by the institutions would come to and from areas within San Francisco, about 53 percent to and from the Bay Area (including the East Bay, North Bay and South Bay) and 32 percent from outside the region. These distribution patterns were used as the basis for assigning the trips to the local streets in the study area. In general, most of these trips were assigned to the major roadways connecting Golden Gate Park to the north, east and south, including Park Presidio Boulevard, Geary Boulevard, Fulton Street, Fell/Oak Streets and 19th Avenue, with some also assigned to the minor connecting roadways. The vehicle trips destined to and from the institutions were assigned to parking spaces within the Park and to spaces to the north, east and south of the Park based on the information on parking location of visitors to the CAS and the number of available spaces within the during the analysis periods.

Parking Demand

The parking demand generated by the visitors to the New deYoung and the new CAS was estimated for the weekday, Saturday and Sunday midday periods. The combined parking demand for the New deYoung and the additional CAS attendance would be about 432 spaces during the weekday midday peak hour, about 666 spaces during the Saturday midday peak hour and about 612 spaces during the Sunday midday peak hour. (As part of the approval process for the New deYoung Museum, the Zoning Administrator granted a Variance from the museum's 156-space parking requirement. The Variance included findings that parking demand for the New DeYoung Museum would be accommodated in existing parking in the Park, or in the potential future GGPCA parking facility, and that the intent of Proposition J was to provide parking for the existing institutions in the Music Concourse area.[9]) In addition, the parking demand associated with the additional staff anticipated at the New deYoung and the new CAS was estimated by the number of new staff, and average mode split and vehicle occupancy rates from the *Interim Transportation Impact Analysis Guidelines*. Combined, it was estimated that the New deYoung and the new the CAS would have a staff parking demand for 72 spaces on weekdays and 27 spaces on weekends.

Baseline plus Project Conditions

The number of vehicle trips associated with the Phase I 800-space Underground Parking Facility was estimated assuming that the facility would be fully occupied during the midday, which is the peak period of parking demand in the Park. This would be a conservative estimate of the traffic to and from the garage during the analysis periods, since it would result in the highest number of inbound and outbound vehicle trips. This would also provide a conservative estimate of the traffic impacts associated with the garage.

Since Phase II would include the Underground Through Street and would close the Music Concourse roadways to through traffic, a reassignment of Park vehicles was conducted for this phase. In addition, although both Parking Variant 1 and Parking Variant 2 would remove the same number of on-street parking spaces within the Park, the location of the spaces to be eliminated would be different, and separate vehicle trip assignments and parking assignments were developed for each parking variant.

The analysis of weekday PM, Saturday midday and Sunday midday peak hour conditions was performed for the Baseline analysis scenarios using a four-step/five-step process:

Step 1 – Assignment of Vehicle Trips To/From Garage

The number of vehicle trips associated with the parking facility was estimated for the weekday PM, Saturday midday and Sunday midday peak hours. For this analysis, it was assumed that the facility would be 100 percent occupied during the midday peak hour, which is a conservative assumption for the transportation analysis. The number of trips to and from the facility was based the vehicle-trip generation associated with the New deYoung and the new CAS, plus trips associated with other parking within the Park. Overall, it was estimated that there would be about 223 vehicle trips (36 inbound and 187 outbound) during the weekday PM peak hour, and about 581 vehicle trips (302 inbound and 279 outbound) during both the Saturday midday and Sunday midday peak hours. The origin/destination patterns and the general assignment of the vehicle trips to and from the parking facility were assumed to be similar as for the New deYoung and new CAS, since the facility would primarily serve the Music Concourse area institutions and attractions.

Step 2 – Elimination of Vehicles Trips and Parking Demand Associated with Parking Removal

The vehicle trips associated with the 800-space parking removal were eliminated from the Baseline traffic volumes for all three study periods. Since the location of the spaces to be removed has not been determined, two variants were analyzed: Parking Variant 1 concentrated the removal of parking spaces east of Crossover Drive in the immediate vicinity of Music Concourse, while Parking Variant 2 assumed parking removal east of Crossover Drive dispersed throughout the eastern portion of the Park. For both variants, the number of weekday PM, Saturday midday and Sunday midday peak-hour trips associated with the spaces to be eliminated was estimated based on current parking occupancies and estimated turnover rates. These vehicles were then removed from the Baseline turning movement volumes. In addition, the parking supply and occupancy were subtracted from the parking supply and demand from within the Park.

Step 3 – Assignment of Parking Demand Not Accommodated in Garage

The parking demand and vehicle trips associated with the parking removal for the vehicles not accommodated within the proposed garage were reassigned back into the Park and the study areas north, south and east of the Park, based on the current availability of parking supply and the general distance to major Park attractions. Due to differences in location and occupancy of parking removal, the assignment of vehicle-trips associated with the parking was different for Parking Variant 1 than for Parking Variant 2.

Step 4 – Reassignment of Tenth Avenue Traffic

Since the Phase I – Underground Parking Facility would require the closure of Tenth Avenue between Kennedy Drive and Fulton Street, the existing vehicles using this segment were reassigned to the Eighth Avenue entrance to the Park. Although some drivers might shift to other Park entrances, such as Arguello Boulevard, the reassignment of all trips to Eighth Avenue would result in a conservative estimate of the additional traffic volumes on Eighth Avenue and within this portion of the Park.

Step 5 – Assignment of Traffic to Tunnel (Phase II only)

For the Phase II Underground Through Street, the vehicles that use the Music Concourse roadways were reassigned to the through street between Kennedy Drive and Middle Drive East. The number of vehicles that would use the through street was determined based on the existing traffic counts and the travel patterns of vehicles using the Music Concourse roadways, as estimated from the origin-destination surveys. In addition, as Academy Drive and Tea Garden Drive would be reconfigured into a loop with Phase II, all remaining traffic volumes on the roadways were reassigned to other streets.

2015 Cumulative Conditions

Separate 2015 Cumulative conditions were developed for Phase I and Phase II, since the Underground Through Street and the closure of Music Concourse roadways to through traffic would substantially affect the assignment of vehicles within the Park and the surrounding streets. For comparison purposes, both 2015 Cumulative scenarios assume Parking Variant 1 only.

By 2015, it is anticipated that there would be changes to the existing transportation network in the vicinity of the Music Concourse, which were included in the analysis of the 2015 Cumulative intersection operations. These changes were part of the *Golden Gate Park Master Plan*, and include the reconfiguration of the Kennedy/Kezar intersection, the closure of Waller Street and the closure of the Seventh Avenue/Lincoln Way entrance.[10]

The future 2015 Cumulative traffic volumes were based on the work for the *Golden Gate Park Draft Master Plan EIR*. A 1.0 percent per year increase in traffic volumes at the study intersections outside Golden Gate Park, and a 0.5 percent per year increase at the study intersections within the Park were applied to the Existing traffic volumes for the future 2015 Cumulative traffic volumes. Since these growth rates were applied to the existing intersection volumes, they would account for the additional vehicle trips generated by the New deYoung and the new CAS. Changes to routing to account for the garage entry/exit, closure of Tenth Avenue, surface parking removal, and the above roadway changes were made to the resulting volumes to obtain the 2015 Cumulative with Garage Phase I and 2015 Cumulative with Garage Phase II traffic volumes.

BASELINE CONDITIONS

Traffic

Tables 3, 4 and 5 presents the Baseline intersection operating conditions for the weekday PM peak hour, Saturday midday peak hour and Sunday midday peak hour, respectively. The addition of the new vehicle trips associated with the New deYoung and the new CAS would not substantially affect the intersection operating conditions during the three analysis periods. In general, traffic operating conditions would be similar to Existing Conditions; however, there would be increases in the average delay per vehicle at most of the study intersections.

TABLE 3
BASELINE INTERSECTION LEVEL OF SERVICE CONDITIONS WEEKDAY PM PEAK HOUR

	Existing		Baseline	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	16.8	B	16.9	B
Cabrillo/Tenth[2]	11.9	B (eb)	12.1	B (eb)
Cabrillo/Eighth[2]	14.6	B (nb)	14.9	B (nb)
Park Presidio/Fulton	35.6	D	35.9	D
Fulton/Tenth	18.5	B	18.7	B
Fulton/Eighth	20.6	C	20.9	C
Fulton/Arguello	21.0	C	21.1	C
Fulton/Stanyan	47.2	D	47.7	D
Kennedy/Stanyan	45.9	D	46.5	D
King/Crossover	38.5	D	39.2	D
Lincoln/Nineteenth	36.1	D	36.5	D
Ninth/Lincoln	46.9	D	48.3	D
Kennedy/Tenth[2]	15.1	C (eb)	16.0	C (eb)
Kennedy/Academy/Tea Garden[2]	28.7	D (wb)	31.0	D (wb)
Kennedy/Eighth[2]	18.0	C (wb)	18.3	C (wb)
Kennedy/Middle Drive East[2]	49.4	E (wb)	>50	F (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	24.4	C (sb)	25.1	D (sb)
King/Academy[2]	8.1	A (eb)	8.8	A (eb)
King/Middle Drive East[2]	25.8	D (sb)	26.9	D (sb)
Middle Drive East/Bowling Green[2]	8.9	A (wb)	9.0	A (wb)
King/Kezar	14.1	B	14.1	B

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle.

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

TABLE 4
BASELINE INTERSECTION LEVEL OF SERVICE CONDITIONS
SATURDAY MIDDAY PEAK HOUR

	Existing		Baseline	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	16.8	B	17.2	B
Cabrillo/Tenth[2]	9.4	A (eb)	10.0	B (eb)
Cabrillo/Eighth[2]	10.3	B (nb)	11.3	B (nb)
Park Presidio/Fulton	29.3	C	29.9	C
Fulton/Tenth	15.8	B	16.5	B
Fulton/Eighth	15.6	B	16.6	B
Fulton/Arguello	13.8	B	15.0	B
Fulton/Stanyan	**67.8**	**E**	**76.3**	**E**
Kennedy/Stanyan	18.8	B	19.6	B
King/Crossover	34.5	C	36.7	D
Lincoln/Nineteenth	27.7	C	30.3	C
Ninth/Lincoln	26.3	C	29.0	C
Kennedy/Tenth[2]	11.6	B (eb)	14.1	B (eb)
Kennedy/Academy/Tea Garden[2]	14.0	B (wb)	14.8	B (wb)
Kennedy/Eighth[2]	11.0	B (wb)	11.8	B (wb)
Kennedy/Middle Drive East[2]	14.9	B (wb)	18.4	C (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	21.0	C (sb)	23.5	C (sb)
King/Academy[2]	8.9	A (eb)	9.1	A (eb)
King/Middle Drive East[2]	15.5	C (sb)	18.3	C (sb)
Middle Drive East/Bowling Green[2]	8.0	A (wb)	8.1	A (wb)
King/Kezar	7.7	A	8.1	A

Source: Wilbur Smith Associates

Notes:

1 Delay presented in seconds per vehicle.

2 Unsignalized intersection – LOS and delay presented for worst approach. * = indicates that a second approach also operates at LOS E/F.

TABLE 5
BASELINE INTERSECTION LEVEL OF SERVICE CONDITIONS SUNDAY MIDDAY PEAK HOUR

	Existing		Baseline	
Intersection	**Delay**[1]	**LOS**	**Delay**[1]	**LOS**
Cabrillo/Park Presidio	17.0	B	17.5	B
Cabrillo/Tenth[2]	9.5	A (wb)	9.9	A (wb)
Cabrillo/Eighth[2]	9.8	A (eb)	10.2	B (eb)
Park Presidio/Fulton	29.4	C	30.1	C
Fulton/Tenth	16.5	B	17.4	B
Fulton/Eighth	15.0	B	15.4	B
Fulton/Arguello	32.3	C	36.2	D
Fulton/Stanyan	**>80**	**F**	**>80**	**F**
Kennedy/Stanyan	19.9	B	20.9	C
King/Crossover	35.9	C	38.0	C
Lincoln/Nineteenth	19.7	B	20.5	C
Ninth/Lincoln	13.5	B	14.1	B
Kennedy/Tenth[2]	–	–	–	–
Kennedy/Academy/Tea Garden[2]	–	–	–	–
Kennedy/Eighth[2]	–	–	–	–
Kennedy/Middle Drive East[2]	–	–	–	–
Kennedy/Kezar[2]	–	–	–	–
King/Tea Garden[2]	11.8	B (eb)	13.7	B (eb)
King/Academy[2]	8.2	A (eb)	8.4	A (eb)
King/Middle Drive East[2]	10.8	B (nb)	13.3	B (sb)
Middle Drive East/Bowling Green[2]	7.5	A (nb)	7.5	A (nb)
King/Kezar	10.2	B	11.7	B

Source: Wilbur Smith Associates

Notes:

1 Delay presented in seconds per vehicle.

2 Unsignalized intersection – LOS and delay presented for worst approach. * = indicates that a second approach also operates at LOS E/F.

Parking

Tables 6, 7 and 8 presents the Baseline parking conditions for the weekday midday peak hour, Saturday midday peak hour and Sunday midday peak hour, respectively. The New deYoung and the new CAS would result in an increase in the parking demand of about 432 vehicles during the weekday midday period, 666 vehicles during the Saturday midday period and about 612 vehicles during the Sunday midday period (both visitors and additional staff). In general, the majority of the additional parking demand could be accommodated within the Park; however, due to constrained parking conditions within and in the vicinity of the Music Concourse, some drivers visiting the institutions or Concourse vicinity may need to park outside the Park. On Sundays, parking would be extremely difficult to find in the study area, and there would be competition for spaces between neighborhood residents, retail/commercial patrons and Park users. As a result, parkers would need to seek parking even further away, outside the study area.

TABLE 6
BASELINE PARKING CONDITIONS WEEKDAY MIDDAY PERIOD

Location	Existing	Baseline
North of Park		
Supply	2,137	2,137
Occupancy	1,596	1,640
% Occupied	*75%*	*77%*
East of Park		
Supply	1,404	1,404
Occupancy	1,241	1,241
% Occupied	*88%*	*88%*
South of Park		
Supply	2,317	2,317
Occupancy	2,083	2,098
% Occupied	*90%*	*91%*
Within East Park		
Supply	3,095	3,095
Occupancy	1,825	2,271
% Occupied	*59%*	*74%*
Total Study Area		
Supply	8,953	8,953
Occupancy	6,745	7,250
% Occupied	*75%*	*81%*

Source: Wilbur Smith Associates

Note: Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

TABLE 7
BASELINE PARKING CONDITIONS SATURDAY MIDDAY PERIOD

Location	Existing	Baseline
North of Park		
Supply	2,137	2,137
Occupancy	1,711	1,914
% Occupied	*80%*	*90%*
East of Park		
Supply	1,404	1,404
Occupancy	1,318	1,332
% Occupied	*94%*	*95%*
South of Park		
Supply	2,317	2,317
Occupancy	2,137	2,183
% Occupied	*92%*	*94%*
Within East Park		
Supply	3,095	3,095
Occupancy	2,502	2,933
% Occupied	*81%*	*98%*
Total Study Area		
Supply	8,953	8,953
Occupancy	7,668	8,362
% Occupied	*86%*	*93%*

Source: Wilbur Smith Associates

Note:

Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

TABLE 8
BASELINE PARKING CONDITIONS
SUNDAY MIDDAY PERIOD

Location	Existing	Baseline
North of Park		
Supply	2,137	2,137
Occupancy	1,918	2,114
% Occupied	*90%*	*99%*
East of Park		
Supply	1,404	1,404
Occupancy	1,309	1,376
% Occupied	*93%*	*98%*
South of Park		
Supply	2,317	2,317
Occupancy	2,198	2,285
% Occupied	*95%*	*99%*
Within East Park		
Supply	2,184	2,184
Occupancy	1,894	2,184
% Occupied	*87%*	*100%*
Total Study Area		
Supply	8,042	8,042
Occupancy	7,319	7,959
% Occupied	*91%*	*99%*

Source: Wilbur Smith Associates

Note:

Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

BASELINE PLUS PROJECT CONDITIONS

Surface Circulation Changes

The reconfiguration of the Park roadways in conjunction with Phase I and Phase II, circulation through the Music Concourse would affect the adjacent areas of the Park and nearby Park access roads.

With the Phase I parking facility, the Tenth Avenue entrance to the Park would be eliminated and replaced with the garage driveway. As a result, there would be a shift in Park-related traffic volumes from Tenth Avenue to Eighth Avenue. Due to this shift, operating conditions at the intersections along Eighth Avenue would worsen, especially during the weekday PM peak hour. In addition, the number of vehicles current entering and exiting the Park via Tenth Avenue is greater than the number of vehicles that would enter and exit the garage. Therefore, with Phase I, traffic volumes on Tenth Avenue would be lower and operating conditions at the intersections along Tenth Avenue would improve.

To accommodate inbound and outbound vehicles at the Academy Drive garage entrance/exit driveway, Academy Drive would be converted to two-way operations between King Drive and the driveway (a distance of about 200 feet). As a result, the intersection of King/Academy would become all-way STOP controlled (currently, Academy Drive is one-way northbound, and eastbound and westbound traffic does not stop). Vehicles exiting the garage would be required to stop and yield to northbound Academy Drive traffic (all vehicles exiting the garage would be required to turn left onto Academy Drive southbound). The reconfiguration of the intersection of King/Academy, the establishment of STOP signs at all three approaches, the positioning of the driveway perpendicular to Academy Drive, and the 200-foot distance from King Drive would facilitate traffic flow into and out of Academy Drive and would ensure that sufficient sight distances exist for all movements.

With the Phase II Underground Through Street, the Music Concourse roadways would be closed to through traffic and Academy Drive and Tea Garden Drive would be reconfigured into a one-way loop. It is anticipated that almost all of the existing traffic on Academy Drive and Tea Garden Drive would divert to the tunnel. As a result of the closure, access to the

Music Concourse uses (including the New deYoung, CAS and Hagiwara Japanese Tea Garden) from the north would become more difficult, as vehicles entering the Park from Eighth Avenue would need to travel through the Underground Through Street to Middle Drive East and then enter the Music Concourse from the south. In addition, access to the Music Concourse uses from the east would also become more difficult, as vehicles currently on Kennedy Drive would need to turn to Middle Drive East or to the Underground Through Street and then enter the Music Concourse from the south.

Although the Music Concourse roadways would be closed to through traffic with Phase II, Muni buses and emergency vehicles would still travel between these roadways and Kennedy Drive. A connector roadway would be provided between Academy/Tea Garden Drives and Kennedy Drive. Private vehicles would be prohibited from using this connector. Restriction would be by signage and enforcement only, which could lead to violations and driver confusion. For instance, vehicles traveling behind Muni buses may inadvertently or deliberately follow these buses through the connector. In addition, enforcement would be difficult without physical barriers or constant presence of traffic control officers.

At the intersection of Middle Drive East with the Underground Through Street, all vehicles leaving the tunnel would be required to turn right onto westbound Middle Drive East and travel through the intersection of King/Middle Drive East.[11] As a result, there would be a substantial increase in traffic volumes at the westbound approach to the intersection, which would lead to the formation of lengthy queues. In addition, vehicles destined to the east would be required to backtrack (i.e., turn right onto Middle Drive East, turn left onto King Drive and on King Drive to the east), which would be circuitous and result in additional traffic volumes along King Drive.

Traffic Impacts

The construction of the Phase I Underground Parking Facility would require improvements at a number of intersections to accommodate the changes in traffic flows and turning movements. For purposes of the analysis of Phase I, the following assumptions have been made.

Tenth Avenue/Fulton Street

Tenth Avenue between Fulton Street and Kennedy Drive would be eliminated and replaced with the garage entrance and exit ramp, which would have one southbound (inbound) lane and two northbound (outbound) lanes. To accommodate vehicles destined to the garage driveway, two changes would be made to Fulton Street: a westbound left-turn pocket would be created (with an exclusive left-turn signal phase) and a wider eastbound curb lane would be provided allow traffic to maneuver around any queued traffic at the garage entrance.

11th Avenue/Fulton Street

To accommodate the changes at Tenth/Fulton, the existing Muni 5-Fulton bus stop on Fulton Street at Tenth Avenue (in both the eastbound and westbound directions) would be relocated to 11th Avenue, and a traffic signal with pedestrian actuation and new crosswalks would be provided at 11th/Fulton. This signal would be interconnected to the signal at Tenth/Fulton to minimize delays on Fulton Street.

Kennedy Drive/Tenth Avenue

This intersection would be eliminated with the garage entrance and exit ramp at Tenth Avenue.

King Drive/Academy Drive

To accommodate vehicles exiting the garage, Academy Drive would be converted to two-way operation between King Drive and the garage entrance and exit ramp. In addition, the intersection of King/Academy would be converted into all-way STOP sign-controlled (currently, eastbound and westbound traffic does not stop).

In addition, Phase II would include the following changes:

Kennedy Drive/Eighth Avenue

The Underground Through Street would connect at the south side of this intersection, which would be an all-way STOP sign-controlled.

King Drive/Middle Drive East

On Middle Drive East, a left-turn lane would be added to the westbound approach, so that the approach would provide a right-turn lane and a left-turn lane.

Middle Drive East/Underground Through Street

This new intersection would be all-way STOP-controlled. On Middle Drive East, an eastbound left-turn lane would be provided for vehicles to access the tunnel. The southern tunnel approach would be configured to provide a right-turn only lane exiting onto Middle Drive East westbound, and vehicles would be prohibited from turning left onto Middle Drive East eastbound.

Music Concourse Roadways

With Phase II, vehicular access to the Music Concourse roadways for pick-ups and drop-offs, buses and taxis would be restricted to a one-way loop connecting Academy Drive (northbound) and Tea Garden Drive (southbound) to King Drive. Access from Kennedy Drive into the Music Concourse, and from the Music Concourse to Kennedy Drive, would be restricted to Muni and emergency vehicles only. Restriction would be by signage and enforcement at a minimum, and possibly by barrier.

Tables 9, 10 and 11 presents the intersection levels of service for the Baseline plus Project Phase I, Parking Variant 1, Baseline plus Project Phase I, Parking Variant 2 and Baseline plus Project Phase II, Parking Variant 1 scenarios for the weekday PM, Saturday midday and Sunday midday peak hours.

Phase I

The Baseline plus Phase I, Parking Variants 1 and 2 conditions, would result in a significant traffic impact at the intersection of Fulton/Eighth during the weekday PM peak hour, and would have no significant traffic impacts during the Saturday midday and Sunday midday peak hours.

TABLE 9
INTERSECTION LEVEL OF SERVICE
BASELINE PLUS PROJECT SCENARIOS – WEEKDAY PM PEAK HOUR

	Baseline		Baseline + Phase I Parking Variant 1		Baseline + Phase I Parking Variant 2		Baseline + Phase II Parking Variant 1	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	16.9	B	16.8	B	16.9	B	16.8	B
Cabrillo/Tenth[2]	12.1	B (eb)	10.0	B (nb)	10.0	B (nb)	10.0	B (nb)
Cabrillo/Eighth[2]	14.9	B (nb)	32.2	D (nb)	32.2	D (nb)	32.2	D (nb)
Park Presidio/Fulton	35.9	D	35.8	D	35.8	D	35.8	D
Fulton/Tenth	18.7	B	20.2	C	20.2	C	20.2	C
Fulton/Eighth	20.9	C	**>80**	**F**	**>80**	**F**	**>80**	**F**
Fulton/Arguello	21.1	C	21.9	C	21.9	C	21.9	C
Fulton/Stanyan	47.7	D	49.4	D	49.4	D	49.4	D
Kennedy/Stanyan	46.5	D	46.2	D	46.2	D	46.2	D
King/Crossover	39.2	D	39.1	D	39.3	D	39.1	D
Lincoln/Nineteenth	36.5	D	36.2	D	36.3	D	36.2	D
Ninth/Lincoln	48.3	D	49.1	D	49.1	D	49.1	D
Kennedy/Academy/Tea Garden[2]	31.0	D (wb)	42.7	E (wb)	43.0	E (wb)	8.5	A (eb)
Kennedy/Eighth[2]	18.3	C (wb)	>50	F (sb)	>50	F (sb)	**>50**	**F* (sb)**
Kennedy/Middle Drive East[2]	>50	F (wb)	47.5	E (wb)	49.0	E (wb)	47.5	E (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	25.1	D (sb)	21.6	C (sb)	21.7	C (sb)	11.3	B (wb)
King/Academy[2]	8.8	A (eb)	24.3	C (eb)	24.3	C (eb)	12.7	B (wb)
King/Middle Drive East[2]	26.9	D (sb)	33.0	D (sb)	33.3	D (sb)	33.4	D (wb)
Middle Drive East/Bowling Green[2]	9.0	A (wb)	8.9	A (wb)	8.9	A (wb)	8.9	A (wb)
King/Kezar	14.1	B	14.6	B	14.6	B	14.6	B
MDE/Underground Through Street[2]	-	-	-	-	-	-	25.7	D (sb)

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

TABLE 10
INTERSECTION LEVEL OF SERVICE
BASELINE PLUS PROJECT SCENARIOS – SATURDAY MIDDAY PEAK HOUR

	Baseline		Baseline + Phase I Parking Variant 1		Baseline + Phase I Parking Variant 2		Baseline + Phase II Parking Variant 1	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	17.2	B	17.1	B	17.1	B	17.1	B
Cabrillo/Tenth[2]	10.0	B (eb)	9.1	A (eb)	9.1	A (eb)	9.1	A (eb)
Cabrillo/Eighth[2]	11.3	B (nb)	12.1	B (nb)	12.1	B (nb)	12.1	B (nb)
Park Presidio/Fulton	29.9	C	29.7	C	29.7	C	29.7	C
Fulton/Tenth	16.5	B	20.0	C	20.2	C	20.0	C
Fulton/Eighth	16.6	B	19.9	B	20.0	C	19.9	B
Fulton/Arguello	15.0	B	14.7	B	14.7	B	14.7	B
Fulton/Stanyan	**76.3**	**E**	**74.5**	**E**	**76.3**	**E**	**74.5**	**E**
Kennedy/Stanyan	19.6	B	19.2	B	19.3	B	19.2	B
King/Crossover	36.7	D	35.4	C	35.5	C	35.4	C
Lincoln/Nineteenth	30.3	C	29.3	C	29.4	C	29.3	C
Ninth/Lincoln	29.0	C	29.8	C	29.7	C	29.8	C
Kennedy/Academy/Tea Garden[2]	14.8	B (wb)	13.3	B (wb)	13.5	B (wb)	8.3	A (eb)
Kennedy/Eighth[2]	11.8	B (wb)	16.6	C (sb)	17.5	C (sb)	30.6	D (sb)
Kennedy/Middle Drive East[2]	18.4	C (wb)	14.9	B (wb)	14.9	B (wb)	14.9	B (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	23.5	C (sb)	16.4	C (sb)	16.2	C (sb)	11.4	B (wb)
King/Academy[2]	9.1	A (eb)	16.2	C (wb)	15.4	C (eb)	16.0	C (wb)
King/Middle Drive East[2]	18.3	C (sb)	20.7	C (sb)	19.7	C (sb)	33.8	D (nb)
Middle Drive East/Bowling Green[2]	8.1	A (wb)	7.9	A (wb)	7.9	A (wb)	7.9	A (wb)
King/Kezar	8.1	A	8.7	A	8.7	A	8.7	A
MDE/Underground Through Street	–	–	–	–	–	–	11.2	B (sb)

Source: Wilbur Smith Associates – October 2002

Notes:

[1] Delay presented in seconds per vehicle

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

TABLE 11
INTERSECTION LEVEL OF SERVICE
BASELINE PLUS PROJECT SCENARIOS – SUNDAY MIDDAY PEAK HOUR

	Baseline		Baseline + Phase I Parking Variant 1		Baseline + Phase I Parking Variant 2		Baseline + Phase II Parking Variant 1	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	17.5	B	17.4	B	17.4	B	17.4	B
Cabrillo/Tenth[2]	9.9	A (wb)	9.9	A (wb)	9.9	A (wb)	9.9	A (wb)
Cabrillo/Eighth[2]	10.2	B (eb)	9.8	A (eb)	9.5	A (eb)	9.8	A (eb)
Park Presidio/Fulton	30.1	C	29.3	C	29.3	C	29.3	C
Fulton/Tenth	17.4	B	22.1	C	22.1	C	22.1	C
Fulton/Eighth	15.4	B	16.0	B	16.0	B	16.0	B
Fulton/Arguello	36.2	D	45.0	D	45.4	D	45.0	D
Fulton/Stanyan	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**
Kennedy/Stanyan	20.9	C	20.4	C	20.4	C	20.4	C
King/Crossover	38.0	C	33.4	C	33.3	C	33.4	C
Lincoln/Nineteenth	20.5	C	20.3	C	20.3	C	20.3	C
Ninth/Lincoln	14.1	B	14.2	B	14.1	B	14.2	B
Kennedy/Academy/Tea Garden[2]	–	–	–	–	–	–	–	–
Kennedy/Eighth[2]	–	–	–	–	–	–	–	–
Kennedy/Middle Drive East[2]	–	–	–	–	–	–	–	–
Kennedy/Kezar[2]	–	–	–	–	–	–	–	–
King/Tea Garden[2]	13.7	B (eb)	11.0	B (eb)	10.8	B (eb)	10.8	B (eb)
King/Academy[2]	8.4	A (eb)	12.2	B (wb)	12.0	B (wb)	12.6	B (wb)
King/Middle Drive East[2]	13.3	B (sb)	13.3	B (sb)	13.1	B (sb)	13.4	B (sb)
Middle Drive East/Bowling Green[2]	7.5	A (nb)	7.5	A (nb)	7.4	A (nb)	7.5	A (nb)
King/Kezar	11.7	B	10.9	B	10.8	B	10.9	B
MDE/Underground Through Street[2]	–	–	–	–	–	–	8.1	A (eb)

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

Phase II

The Baseline plus Phase II, Parking Variant 1 conditions would result in a significant traffic impact at the intersection of Kennedy/Eighth/Concourse Bypass Tunnel during the weekday PM peak hour, and would have no significant traffic impacts during the Saturday midday and Sunday midday peak hours.

Garage Operations

The parking facility would be a paid operation ("pay-on-foot" or pay parking ticket prior to returning to vehicle) and would contain 800 parking spaces in two, two-level structures (North Garage and South Garage) connected by a tunnel. The facility would provide variable electronic signage to provide information regarding the availability of parking within each level and each side of the garage and whether the garage is fully occupied. For instance, signage would be provided along Fulton Street (for traffic in the eastbound, westbound and southbound directions) and Academy Drive to notify potential parkers that the garage of the current garage occupancy. These signs would be operated by garage staff, and would include video cameras to monitor the queuing situation at the parking facility entrances. In addition, when the facility were to approach full occupancy, drivers would be directed to use other parking facilities in the area, including the Kezar lot on the UCSF Garage.

At both the Tenth Avenue and Academy Drive driveways, the inbound and outbound access control devices would be located a distance from the main roadway – about 200 feet at the Tenth Avenue entrance and 120-140 feet at the Academy Drive entrance. Queues that form into the facility would likely be accommodated in the driveways and would not affect vehicular circulation on the adjacent streets or roadways. To supplement the analysis of intersection operating conditions, a queuing analysis was performed at these two driveways. Overall, it was determined that the proposed left-turn pocket from westbound Fulton Street into the parking facility would be sufficient to accommodate the anticipated entrance queues (about two or three vehicles). In addition, the queues that would form at the southbound Tenth Avenue would be relatively short (about one vehicle) and would not affect local circulation on Tenth

Avenue. At the Tenth Avenue and Academy Drive access control devices, the queues entering the garage would not extend back to the main street.

Parking Impacts

The traffic and parking analysis was conducted for two parking variants. Both parking variants assume that of the 800 surface spaces to be removed within the Park as part of the project, 60 percent (480 spaces) would be removed east of Crossover Drive and 40 percent (320 spaces) would be removed west of Crossover Drive. Under both parking variants, of the 480 spaces that would be removed on roadways east of Crossover Drive, 200 spaces would be removed from the Music Concourse. Parking Variant 1 assumes that the remaining 280 spaces would be removed from within ¼ mile radius of the Music Concourse, while Parking Variant 2 assumes that the remaining 280 spaces would be removed somewhere east of Crossover Drive but not concentrated within ¼ mile of the Music Concourse. The specific locations of the parking removal have not been determined at this time.

Tables 12, 13 and 14 present the parking analysis for the two parking variants for weekday, Saturday and Sunday midday peak periods, respectively. It should be noted that the parking analysis for each parking variant would be the same for both Phases 1 and 2 of the Proposed Project and assume full occupancy of the garage. With both parking variants, the construction of the underground garage (+800 spaces) and elimination of surface parking spaces (-480 east of Crossover Drive) would result in a net increase of 320 parking spaces in the study area. On Sundays, when Kennedy Drive is closed to vehicular traffic, the net increase would be more (a net increase of 496 spaces for Parking Variant 1 and 424 spaces for Parking Variant 2), since some of the parking spaces that would be eliminated as part of the garage are not available under Baseline conditions with Sunday road closure.

TABLE 12
BASELINE PLUS PROJECT PARKING CONDITIONS
WEEKDAY MIDDAY PERIOD

Location	Baseline	Baseline plus Project – Parking Variant 1	Baseline plus Project – Parking Variant 2
North of Park			
Supply	2,137	2,137	2,137
Occupancy	1,640	1,589	1,581
% Occupied	*77%*	*74%*	*74%*
East of Park			
Supply	1,404	1,404	1,404
Occupancy	1,241	1,241	1,241
% Occupied	*88%*	*88%*	*88%*
South of Park			
Supply	2,317	2,317	2,317
Occupancy	2,098	2,083	2,083
% Occupied	*91%*	*90%*	*90%*
Within East Park			
Supply	3,095	3,415	3,415
Occupancy	2,271	2,265	2,273
% Occupied	*74%*	*66%*	*67%*
Total Study Area			
Supply	8,953	9,273	9,273
Occupancy	7,250	7,178	7,178
% Occupied	*81%*	*77%*	*77%*

Source: Wilbur Smith Associates

Note: Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

TABLE 13
BASELINE PLUS PROJECT PARKING CONDITIONS
SATURDAY MIDDAY PERIOD

Location	Baseline	Baseline plus Project – Parking Variant 1	Baseline plus Project – Parking Variant 2
North of Park			
Supply	2,137	2,137	2,137
Occupancy	1,914	1,740	1,740
% Occupied	*90%*	81%	81%
East of Park			
Supply	1,404	1,404	1,404
Occupancy	1,332	1,321	1,321
% Occupied	*95%*	94%	94%
South of Park			
Supply	2,317	2,317	2,317
Occupancy	2,183	2,150	2,150
% Occupied	*94%*	93%	93%
Within East Park			
Supply	3,095	3,415	3,415
Occupancy	2,933	3,064	3,064
% Occupied	*98%*	90%	90%
Total Study Area			
Supply	8,953	9,273	9,273
Occupancy	8,362	8,275	8,275
% Occupied	*93%*	89%	89%

Source: Wilbur Smith Associates

Note: Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

TABLE 14
BASELINE PLUS PROJECT PARKING CONDITIONS SUNDAY MIDDAY PERIOD

Location	Baseline	Baseline plus Project – Parking Variant 1	Baseline plus Project – Parking Variant 2
North of Park			
Supply	2,137	2,137	2,137
Occupancy	2,114	1,921	1,932
% Occupied	*99%*	*90%*	*90%*
East of Park			
Supply	1,404	1,404	1,404
Occupancy	1,376	1,312	1,312
% Occupied	*98%*	*93%*	*93%*
South of Park			
Supply	2,317	2,317	2,317
Occupancy	2,285	2,200	2,206
% Occupied	*99%*	*95%*	*95%*
Within East Park			
Supply	2,184	2,680	2,608
Occupancy	2,184	2,448	2,431
% Occupied	*100%*	*91%*	*93%*
Total Study Area			
Supply	8,042	8,838	8,466
Occupancy	7,959	7,881	7,881
% Occupied	*99%*	*92%*	*93%*

Source: Wilbur Smith Associates

Note

Parking study area generally bounded by Balboa Street to the north, Funston Avenue and Crossover Drive to the west, Judah Street and Parnassus Avenue to the south, and Cole Street and Stanyan Boulevard to the east.

As a result of the increase in parking supply within the study area with Phase I, parking occupancy in the study area would decrease from Baseline conditions during the three analysis periods. During the weekday midday period, the overall parking occupancy would decrease from 81 percent to 77 percent; during the Saturday midday period, the overall parking occupancy would decrease from 93 percent to 89 percent; and during the Sunday midday period, the overall parking occupancy would decrease from 99 percent to 92 percent / 93 percent (with Parking Variant 1 and 2, respectively).

In addition, for the Baseline plus Phase I conditions, the increase in the parking supply in the eastern portion of the Park would decrease the number of drivers that would need to park outside of the Park (about 65 during the weekday midday, 220 during the Saturday midday and 340 (Parking Variant 1) or 325 (Parking Variant 2) during the Sunday midday.

The parking analysis assumes that the parking facility would be used by staff and visitors to the Music Concourse area institutions and other Park visitors, and that it would be used to capacity during its peak hours. At this time, parking rates have not been determined. The elimination of 480 surface spaces east of Crossover Drive would reduce the amount of free parking in the study area, and drivers wishing not to pay for parking in the parking facility might need to travel farther from the Music Concourse to find available free parking (e.g., further west on Park roadways where there is currently available capacity). It should be noted that the implementation of timed-limited parking in the vicinity of the Music Concourse would reduce the free surface parking available to long-term parkers. If the parking facility were not fully occupied during the peak periods, the reduction in the number of vehicles parked outside of the Park could be less and the parking occupancies would approach the levels presented for the baseline conditions, depending on the occupancy levels in the facility.

Since a portion of the 800 parking spaces to be removed would be within the Park west of Crossover Drive, parking conditions were also examined in this area for the three analysis periods. While the location of parking spaces to be removed has not been determined, it is anticipated that the removal would be focused on improvements for safety considerations, pedestrian circulation and shuttle stops (as indicated in Proposition J). The elimination of 320 parking spaces west of Crossover Drive, with both parking variants, would reduce the parking supply to 2,440 spaces on weekdays and Sundays, and to 2,110 spaces on Saturdays. Parking occupancy would increase to between 12 and 41 percent, indicating that additional capacity is available and that the removal would not substantially affect the ability of Park visitors to find parking in the west of the Park.

Phasing of Surface Parking Removal: As specified in Proposition J, the elimination of the 800 surface parking spaces would occur upon completion of the proposed Underground Parking Facility. However, parking spaces would be eliminated for construction of the parking garage, including the spaces within the Music Concourse, spaces along Tenth Avenue and other spaces as part of the improvements to Park intersections.

The effect of the elimination of parking spaces prior to completion of the Underground Parking Facility would be a decrease in the parking supply in the vicinity of the Music Concourse that would further constrain parking conditions. As a result, there may be an increase in vehicles circling for parking within the Park and an increase in parking demand north, south and east of the Park with the study area. However, these conditions would be for about eight months from when construction on the proposed parking garage starts and when the CAS is closed; the New deYoung Museum would also be closed until 2005.

Parking Removal Associated with Intersection Improvements: The intersection improvements at Tenth/Fulton with the garage and at King Drive/Middle Drive East and Middle Drive East/Concourse Bypass Tunnel with Phase II would require removal of on-street parking within the Park, on Fulton Street and on Tenth Avenue. The removal of parking within the Park would likely be included as part of the surface parking removal of 800 parking spaces within the Park. The intersection improvements would eliminate 44 parking spaces under Phase I and an additional 33 parking spaces under Phase II.

Handicapped Parking: The proposed garage would provide a total of 33 handicapped-accessible parking spaces, and would therefore meet the *San Francisco Planning Code* requirements (one handicapped-accessible space per each 25 spaces provided in the garage).

Time-Limited Parking Restrictions: The TIP includes implementation of the time-limited parking restrictions included in, and analyzed for, the *Golden Gate Park Draft Master Plan*

EIR to discourage commuter parking within the Park. Three-hour restrictions on weekdays would be posted on King Drive between Ninth Avenue and Kezar Drive, on Kezar Drive, on Bowling Green Drive, on Kennedy Drive east of Bowling Green Drive, and on Conservatory Drive West. Other roadways in the Music Concourse area (Kennedy Drive, Tenth Avenue entrance, Eighth Avenue entrance, Academy Drive, Tea Garden Drive and King Drive between Crossover and Ninth Avenue) would have a four-hour restriction on weekdays.

The Concourse Authority is currently working to implement time-limited parking on weekdays in the Park. Implementation of the time-limited parking program in has been approved, but is pending the development of an enforcement plan and mitigation program. The parking restriction signs will not be installed until an enforcement plan is in place. Once a target date for implementation has been identified, there will be a comprehensive community notification process.

The time-limited parking would only be in effect on weekdays, and therefore the parking restrictions would only affect weekday parking conditions. The *Final Transportation Study for the Golden Gate Park Draft Master Plan EIR*, December 1996, which analyzed the effects of this proposal, indicated that the restrictions would result in about 500 commuters seeking parking elsewhere outside of the Park or shifting to transit or carpooling. Based on the *Master Plan* analysis, the implementation of the time-limited parking might make about 500 parking spaces in the Park available for short-term use (although some of these spaces may be removed as part of the surface parking removal with the proposed parking garage). With construction of the Underground Parking Facility, a portion of the 500 drivers displaced as a result of the parking restriction may shift to the Underground Parking Facility, and short term visitors to the Park might be more likely to find free parking within walking distance of the Music Concourse.

Transit Impacts

A qualitative assessment determined the effects of the changes in the roadway network and circulation patterns that Phases I and II would have on transit circulation and operations, primarily the Muni 44-O'Shaughnessy bus line across the Park, Muni operations along Fulton Street and the Intra-Park Shuttle.

Since the Tenth Avenue entrance to the Park would be eliminated and replaced with the parking access driveway, there would an increase in traffic volumes on Eighth Avenue and an increase in traffic using the Eighth Avenue entrance to the Park. These increases in traffic volumes on Eighth Avenue, and the associated increases in average delays per vehicle at the intersection of Fulton/Eighth and Kennedy/Eighth, would result in increased delays to the Muni 44-O'Shaughnessy bus line, about one to two minutes during the weekday PM peak hour and about five seconds during the Saturday midday peak hour. Chapter IV identifies proposed mitigation for this intersection (restriping the northbound approach to provide two lanes) with which the increased delays would be avoided. Overall, it is not anticipated that the minor increase in travel times would substantially affect Muni operations, with the proposed mitigation measure.

The relocation of the existing westbound and eastbound Muni bus stops from Tenth Avenue to 11th Avenue would affect riders of the Muni 5-Fulton line who may have to increase walking distance by one block. Since the intersection of Fulton/11th Avenue is unsignalized, this improvement would include the installation of a traffic signal with pedestrian actuation pedestrian signal and crosswalks to accommodate the increased pedestrian crossings of Fulton Street.

With the Phase I Underground Parking Facility and the Phase II Underground Through Street, traffic volumes on most of King Drive would be similar to, or lower than, Baseline conditions. (Note that traffic volumes south of Middle Drive East would remain the same with Phase II.) Operation of the Muni 44-O'Shaughnessy bus line would not be substantially affected by changes in traffic volumes due to Phase I or Phase II.

With Phase I, Academy Drive between the garage entrance/exit ramp and King Drive would be converted from one-way northbound operation to two-way operation and the intersection of King/Academy would be converted into all-way STOP controlled. Although both changes might cause minor delays in bus operations (due to vehicles entering and exiting the garage and the additional STOP sign), it is not anticipated that Muni operations or service would be substantially affected.

With Phase II, Muni bus operations in the Music Concourse would improve, as there would be a substantial reduction in vehicle volumes (only Muni and emergency vehicles would be able to access the Music Concourse roadways from Kennedy Drive). However, King Drive between Academy Drive and Lincoln Way would become more congested due to the Underground Through Street, which could potentially increase travel times for the Muni 44-O'Shaughnessy bus line.

The elimination of parking associated with construction of the garage would result in additional right-of-way on narrow Park roadways, which would facilitate vehicular flow, including buses.

The Intra-Park Shuttle would make taking transit to and from the Park more attractive, and may increase ridership on Muni lines serving the Park, including the 6-Parnassus, 33-Stanyan, 43-Masonic, 44-O'Shaughnessy and the 71-Haight/Noriega bus lines. In addition, the Intra-Park Shuttle may reduce the need to drive between Park attractions and may further reduce the number of vehicles on the Music Concourse roadways.

Traffic calming improvements along Park roadway (such as Kennedy Drive, Academy Drive and Tea Garden Drive), including new crossing signs and ladder markings at crosswalks would not substantially affect transit service in the Park.

Pedestrian Impacts

A qualitative assessment of pedestrian conditions assessed the effect of the TIP on pedestrian circulation in the vicinity of the Music Concourse. In general, pedestrians would benefit from most elements of the TIP, which are intended to create a pedestrian oasis in the Music Concourse area, while reducing the impact of automobiles in the Park.

Surface improvements proposed for the Music Concourse include: the width of Academy Drive and Tea Garden Drive would be narrowed; lower speed limits would be posted; pedestrian circulation space in front of the institutions would be increased; crosswalks would be clearly delineated; parking would be eliminated from the Music Concourse; recessed passenger loading/unloading bays would be provided in front of the New deYoung and CAS; and the existing pedestrian tunnels in the Music Concourse would be maintained. Overall, these improvements would accommodate an increase in pedestrian travel and enhance the pedestrian environment.

With the Phase I Underground Parking Facility, pedestrian access into the Park at Tenth Avenue would be somewhat limited (the existing pathway on the west side of Tenth Avenue between Fulton Street and Kennedy Drive would remain) and the Muni 5-Fulton bus stop on Fulton Street at Tenth Avenue would be relocated to 11th Avenue. As a result, some Park visitors may divert to the Eighth Avenue entrance and the number of pedestrians at the intersection of Fulton Street and Eighth Avenue would increase.

The ramp at Academy Drive would be designed such that the eastern pedestrian sidewalk would continue along the east side of the driveway portal and into the plaza in front of the CAS. A pedestrian walkway and a crosswalk across Academy Drive would be provided at the southern end of the plaza.

Phase I would include rebuilding and retention of the northeast and southeast pedestrian tunnels between the Concourse bowl and paths to the north and south. The southwest pedestrian tunnel would be retained as route from the bowl through the upper level of the parking facility to the Shakespeare Garden area, or, as a variant, would be closed and replaced with a new pedestrian route on the surface, as discussed in Section III.C., Historic Resources. Overall, Phase I would maintain these existing pedestrian routes serving the Concourse area.

Phase I would increase the parking supply in the Music Concourse and would increase the number of pedestrians that would travel to and from the Music Concourse area. Pedestrian travel would increase to/from the north of the Music Concourse, and additional pedestrians would pass through the "T" intersections of Kennedy/Academy/Tea Garden and Kennedy/Eighth. At both of these intersections, one of the Kennedy Drive approaches does not stop, which currently makes it difficult for pedestrians to cross the entire right-of-way.

As part of the removal of on-street parking throughout the Park, up to 100 crosswalks locations throughout the Park would be striped to enhance visibility and improve pedestrian safety.

Bicycle Impacts

A qualitative assessment of bicycle conditions assessed the effect of the TIP on bicycle travel in the Park. As with pedestrians, bicyclists would benefit from TIP elements that are designed to reduce the impact of automobiles in the Park.

The parking facility would provide a total of 46 bicycle parking spaces, and would therefore meet the *Planning Code* requirements. The bicycle parking would be Class 2 spaces (bicycle racks) in the upper level of the parking facility adjacent to the pedestrian access points, which would be at-grade with the Music Concourse.

The removal of surface parking spaces along roadways throughout the Park and at intersections would provide for additional right-of-way for bicycle travel. The elimination of curb parking would also reduce parking maneuvers and opening door conflicts which hinder bicycle travel.

The surface improvements in the Music Concourse would reduce the number of vehicles on the Music Concourse roadways, which would facilitate and enhance bicycle travel.

Although the design of the surface improvements in the Music Concourse have not been completed, it is anticipated that the roadway width of Academy Drive and Tea Garden Drive would be reduced to provide one 14-foot travel lane and one 6-foot bicycle lane. The reduction in the roadway width would result in a reduction in the travel speed through the Music Concourse; in addition, the provision of a separate bicycle lane would improve bicycle conditions.

Loading Impacts

As part of the Music Concourse surface improvements, the curb in front of the New deYoung and the CAS would be reconfigured and two recessed passenger loading/unloading bays would be provided on Academy Drive in front of the CAS, and on Tea Garden Drive in front of the New deYoung. The passenger loading/unloading bays would accommodate a Muni bus stop, private vehicles, taxis and buses. Assuming 100 feet reserved for the Muni bus stop, about 330 feet of space would be available for vehicle and bus loading/unloading on Academy

Drive, and 300 feet at Tea Garden Drive. This distance in front of each institution would accommodate up to six buses or 15 private vehicles at one time.

With Phase I and Phase II, it is anticipated that passenger loading/unloading activities would occur similar to existing conditions. Passengers in private autos and taxis could be dropped off and picked up in passenger zones in front of the institutions. Tour buses and school buses would drop off passengers at the curb in front of the institutions and then park west of the band shell, in the tour bus parking lot. At this time, tour and school buses would continue to park in the tour bus parking lot west of the band shell.

Since the connection between Kennedy Drive and Academy Drive/Tea Garden Drive would be closed to all vehicles (except Muni and emergency vehicles) with Phase II, all tour buses and school buses would need to access the Music Concourse from King Drive. In addition, the closure of the connection may result in minor rerouting of delivery/service vehicles destined to the New deYoung Museum, California Academy of Sciences or the Hagiwara Japanese Tea Garden, as these vehicle may be required to use the Underground Through Street, depending upon their origin.

Construction Impacts

Implementation of the TIP would result in different levels of construction activity and associated impacts. For example, the level of construction activity for the Underground Parking Facility and the Music Concourse surface improvements is anticipated to be high, while the level of construction activity for many of the other TIP elements, such as the parking removal, pedestrian and bicycle improvements, and some traffic calming improvements are anticipated to be low and would not substantially affect vehicular, bicycle and pedestrian circulation in the Park. This section, therefore, focuses on the construction impacts associated with the underground parking garage and Music Concourse surface improvements.

Preliminary construction schedule information was developed for Phase I and Phase II. Construction of Phase I is expected to take approximately 21 months. It is anticipated that construction activities would start in May 2003 and be completed by February 2005. It is anticipated that construction of the Underground Through Street with Phase II would be about

10 to 12 months following completion of design drawings and permitting. The Music Concourse surface improvements are anticipated to occur during the buildout and finish phase of the underground parking garage; however, detailed construction-related information is not yet available.

Construction-related activities would typically occur Monday through Friday from 7:00 AM to 5:30 PM. It is not anticipated that night and/or weekend construction would be necessary; however, there may be special conditions that may require occasional weekend construction.

Construction staging would occur primarily within the current Music Concourse parking, between Academy Drive and the lower level of the Music Concourse. The use of this parking area for staging would eliminate about 200 parking spaces.

Construction of Phase I at Tenth Avenue would permanently close Tenth Avenue between Fulton Street and Kennedy Drive, which would eliminate 18 parking spaces. As noted earlier, the closure of this Park entrance would reroute traffic using the Tenth Avenue to Eighth Avenue. Construction of the intersection improvements at Tenth Avenue at the garage driveway would require the permanent relocation of the Muni bus stop to Eleventh Avenue.

Both Academy Drive and Tea Garden Drive (and adjacent sidewalks) between Kennedy Drive and the band shell would be closed for the duration of the construction. The closure of the Music Concourse roadways would require the temporary rerouting of the Muni 44-O'Shaughnessy bus line and relocation of the bus stops now on Academy Drive and Tea Garden Drive. The 44-O'Shaughnessy could potentially be rerouted to use Kennedy Drive, Bowling Green, Middle Drive East and King Drive. Temporary bus stops could be located on Middle Drive East near the CAS entrance.

In addition, Kennedy Drive in the vicinity of Tenth Avenue would be temporarily closed for about 10 months during the excavation and construction. The temporary closure of Kennedy Drive would result in the diversion of traffic from Kennedy Drive to Fulton Street, Kezar Drive, Middle Drive East and Lincoln Way, and would temporarily increase vehicle delays along these streets. Road closure and alternate route signs would be placed in advance of the closure to facilitate the reroute of traffic.

During the construction period, there would be a flow of construction-related trucks in and out of the Music Concourse area. The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks. This may affect both traffic and the Muni 44-O'Shaughnessy operations. There would be an average of 4 to 33 construction-related trucks per day under Phase I. The maximum number of trucks per day would be 84, which would be expected to occur during the first phase of construction – during excavation and shoring of the garage.

It is anticipated that a majority of the construction-related truck traffic would use 19th Avenue (from I-280/SR 1 from the Peninsula and South Bay) and I-80 (from the East Bay). For access to the site from the south, trucks would be routed from 19th Avenue to King Drive, and would return via King Drive to Crossover Drive and 19th Avenue. For access to the site from I-80, trucks would be routed to the Fell Street off-ramp to Kennedy Drive, and would return to I-80 via Kennedy Drive, Oak Street, Gough Street and the South Van Ness on-ramp. It is not anticipated that a substantial amount of construction traffic would travel to and from the site from the north of the Park.

On average, there would be between 4 and 39 construction workers per day at the project site with Phase I. The maximum number of construction workers would occur during the first stage of construction, when there would be up to 100 workers per day. Trip distribution and mode split data is not available for the construction workers. However, the addition of the worker-related vehicle or transit trips would not substantially affect the transportation conditions, as both the local traffic and transit network generally have available capacity.

Construction workers would cause a temporary parking demand. The peak parking demand would occur during the first stage of construction, when there would be a maximum parking demand for 100 to 140 spaces. Carpooling or transit use by construction workers would reduce the maximum parking demand. Construction workers are anticipated to park within the Music Concourse area, on Kennedy Drive and on King Drive. It is anticipated that on-street parking would be available within the Golden Gate Park. Since construction activities would be limited to weekdays, the parking demand from construction workers would not substantially affect the parking conditions in the nearby neighborhood or for other Golden Gate Park attractions.

Construction activities associated with the proposed project would overlap the construction phases of other planned projects in the vicinity of the site, particularly the construction of the New deYoung Museum and the new California Academy of Sciences. The construction activities associated with these projects would affect access, traffic operations, bus operation and pedestrian movements. In combination, the potential overlapping construction of these projects may result in temporarily increased congestion in the area, plus inconveniences to motorists, pedestrians, bicyclists and transit patrons.

The New deYoung is currently under construction and is anticipated to open in mid-2005. The New deYoung's foundation and structure, rough-in and buildout, and move-in phases are anticipated to overlap with the construction of the underground parking garage (between May 2003 and February 2005). This overlap would increase the number of trucks destined to and from the Music Concourse area, as well as the number of construction workers parked on Park roadways. In addition, the New deYoung's construction vehicles would no longer be able to use Tenth Avenue to access Kennedy Drive and the staging area in the former employee parking lot off Kennedy Drive. The overlap of the first phase of the proposed garage, and the Foundation and Structure phase of the New deYoung would result in up to 133 trucks per day accessing the Music Concourse area with Phase I.

Planning for the CAS is currently underway and therefore detailed construction information is not available. However, current plans anticipate that the CAS would close in January 2004, demolition would begin in March 2004 and the CAS would reopen in January 2008. For an eight-month period between May 2003 (which is projected to be the start of the garage Excavation and Shoring phase) and January 2004 (when the CAS closes), the CAS would not have access to their main entrance off of Academy Drive, and the Middle Drive East entrance would need to be used.

The construction activity at the CAS would overlap with the New deYoung and proposed garage between September 2004 and January 2005 (a five-month period), and overlap with the New deYoung move-in activities between February 2005 and June 2005 (a five month period).

During the overlap phases the number of construction trucks and worker parking would be anticipated to increase.

To reduce the combined effect of these construction impacts, each individual project sponsor would work with various departments of the City (Department of Parking and Traffic, Muni, the Fire Department, etc.) to develop a detailed and coordinated plan that would address construction vehicle routing, traffic control and pedestrian movement adjacent to the construction area.

Special Events Operations

The New deYoung and CAS are anticipated to hold special events throughout the year. Information on the number of events per year and the attendance levels are not currently known. A qualitative assessment of the potential impacts under large special event conditions was conducted for operations before and after an event.

Events at the New deYoung and CAS are anticipated to occur during the evening after closing of the institutions. Since these events would occur at night, it is anticipated that occupancy of the proposed garage would be low prior to the start of the event and the traffic volumes on the surrounding streets would be reduced. Parking staff would coordinate with institutions holding special events, so that special staffing arrangements and changes to the vehicular circulation would occur. Patrons would be required to pay a fixed parking fee upon entry, which would be collected by an attendant at the entry lanes at both the Tenth Avenue and Academy Drive entrances.

Prior to the event, the operation of the center lane at the Tenth Avenue driveway would be reversed to allow for two entry lanes into the garage, which would then merge to one lane after payment of the parking fee. After the special event, the control gates would be raised to allow patrons to exit freely. These arrangements would allow for quicker exiting when a majority of patrons are trying to leave in a short period of time. It should be noted that the signal at the intersection of Fulton/Tenth would control the discharge of vehicles to and from the garage driveway.

At the Academy Drive driveway, it is anticipated that the one-lane entrance and one-lane exit would be maintained prior to and following a special event.

For both Phases I and II, it is not anticipated that special events would substantially affect traffic conditions following an event. Traffic volumes in the vicinity of the Park are typically lower during the evening period, and vehicles exiting the event would be metered onto Fulton Street by the traffic signal at the intersection of Fulton/Tenth. However, it may be necessary to have a parking control officer stationed at the intersection of King/Academy to direct and control exiting traffic (to ensure that vehicles do not block northbound Academy Drive traffic).

Kennedy Drive Saturday Closure Assessment

The San Francisco Board of Supervisors is considering legislation to implement additional road closures within Golden Gate Park on Saturdays. The Saturday closure would include the following streets in the Park: Kennedy Drive between Kezar Drive and Eighth Avenue, Arguello Boulevard between Fulton Street and Kennedy Drive, Conservatory Drive East and West, and Bowling Green Drive between Kennedy Drive and Middle Drive East. No other changes to the roadway network are proposed. Environmental review of the proposed Kennedy Drive closure is currently underway; a Preliminary Mitigated Negative Declaration for the proposed closure was published on November 30, 2002 (Case No. 2001.1148E).

That document analyzed the effect of the Saturday closure of Kennedy Drive on intersection operating conditions for Baseline plus Project Phase I, Parking Variant 1 conditions, and indicates that the proposed closure would result in two additional impacts to intersection operating conditions during the Saturday midday peak hour: Fulton/Stanyan (LOS E to LOS F) and King/Middle Drive East (LOS C to LOS E). These impacts of the Saturday Kennedy Drive closure would be due to the diversion of vehicles from Kennedy Drive to Fulton Street on the northern edge of the Park, and to Kezar Drive and King Drive within the southern portion of the Park.

The effect of the closure on intersection operating conditions was not assessed for the Baseline plus Project Phase II, Parking Variant 2 conditions. However, since the proposed closure of Kennedy Drive would end at Eighth Avenue, access to and from the Underground Through

Street would be maintained. As such, the proposed closure would not affect operations of the through street.

The proposed Kennedy Drive Saturday closure would decrease the number of vehicles parked within the Park during the Saturday midday by about 174 vehicles, and increase the number of vehicles parked north of the Park (an additional 141 vehicles), east of the Park (an additional 17 vehicles) and south of the Park (an additional 16 vehicles). The parking occupancy for the parking study area would be 87 percent north of the Park, 95 percent east of the Park, 94 percent south of the Park and 96 percent within the Park. Overall, study area parking occupancy would be 93 percent as compared to 89 percent without the proposed closure.

2015 CUMULATIVE CONDITIONS

As previously discussed, the 2015 Cumulative with Project Phase I, Parking Variant 1 and the 2015 Cumulative with Project Phase II, Parking Variant 1 conditions were based on an annual growth rate in traffic volumes over Existing conditions: 1.0 percent per year increase at the study intersections outside Golden Gate Park and a 0.5 percent per year increase at the study intersections within the Park. In addition, changes to routing to account for the Phase I parking access, closure of Tenth Avenue, surface parking removal, creation of the Phase II Underground Through Street, and the changes to the roadway network associated with the implementation of the *Golden Gate Park Master Plan* were made to the resulting volumes.

Tables 15, 16 and 17 present the 2015 Cumulative intersection operating conditions for the weekday PM, Saturday midday and Sunday midday peak hour conditions, respectively.

By 2015, there would be a substantial increase in traffic volumes on the major streets outside the Park, including Park Presidio Boulevard/Crossover Drive, Fulton Street and Stanyan Street, and on Kennedy Drive and Kezar Drive/King Drive inside the Park. As a result, most of the study intersections along these street would operate at LOS E or F during the three study periods.

TABLE 15
INTERSECTION LEVEL OF SERVICE
EXISTING, BASELINE AND 2015 CUMULATIVE CONDITIONS – WEEKDAY PM PEAK HOUR

	Existing		Baseline		2015 Cumulative with Phase I		2015 Cumulative with Phase II	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	16.8	B	16.9	B	26.2	C	26.2	C
Cabrillo/Tenth[2]	11.9	B (eb)	12.1	B (eb)	10.9	B (eb)	10.9	B (eb)
Cabrillo/Eighth[2]	14.6	B (nb)	14.9	B (nb)	>50	F (nb)	>50	F (nb)
Park Presidio/Fulton	35.6	D	35.9	D	**74.6**	**E**	**74.6**	**E**
Fulton/Tenth	18.5	B	18.7	B	29.3	C	24.3	C
Fulton/Eighth	20.6	C	20.9	C	**>80**	**F**	**>80**	**F**
Fulton/Arguello	21.0	C	21.1	C	32.7	C	32.7	C
Fulton/Stanyan	47.2	D	47.7	D	**70.5**	**E**	**70.5**	**E**
Kennedy/Stanyan	45.9	D	46.5	D	**79.3**	**E**	**79.3**	**E**
King/Crossover	38.5	D	39.2	D	**73.2**	**E**	**73.2**	**E**
Lincoln/Nineteenth	36.1	D	36.5	D	**>80**	**F**	**>80**	**F**
Ninth/Lincoln	46.9	D	48.3	D	54.1	D	54.1	D
Kennedy/Academy/Tea Garden[2]	28.7	D (wb)	31.0	D (wb)	>50	F (wb)	8.6	A (eb)
Kennedy/Eighth[2]	18.0	C (wb)	18.3	C (wb)	**>50**	**F* (sb)**	**>50**	**F* (sb)**
Kennedy/Middle Drive East[2]	49.4	E (wb)	>50	F (wb)	>50	F (wb)	>50	F (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	24.4	C (sb)	25.1	D (sb)	25.2	D (sb)	11.6	B (wb)
King/Academy[2]	8.1	A (eb)	8.8	A (eb)	28.7	D (eb)	13.5	B (wb)
King/Middle Drive East[2]	25.8	D (sb)	26.9	D (sb)	41.3	E (sb)	**42.1**	**E* (wb)**
Middle Drive East/Bowling Green[2]	8.9	A (wb)	9.0	A (wb)	9.0	A (wb)	9.0	A (wb)
King/Kezar	14.1	B	14.1	B	19.0	B	19.0	B
MDE/Underground Through Street[2]	-	-	-	-	-	-	32.6	D (sb)

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

TABLE 16
INTERSECTION LEVEL OF SERVICE
EXISTING, BASELINE AND 2015 CUMULATIVE CONDITIONS – SATURDAY MIDDAY PEAK HOUR

	Existing		Baseline		2015 Cumulative with Phase I		2015 Cumulative with Phase II	
Intersection	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
Cabrillo/Park Presidio	16.8	B	17.2	B	27.8	C	27.8	C
Cabrillo/Tenth[2]	9.4	A (eb)	10.0	B (eb)	9.6	A (eb)	9.6	A (eb)
Cabrillo/Eighth[2]	10.3	B (nb)	11.3	B (nb)	14.2	B (nb)	14.2	B (nb)
Park Presidio/Fulton	29.3	C	29.9	C	**59.6**	**E**	**59.6**	**E**
Fulton/Tenth	15.8	B	16.5	B	23.3	C	23.3	C
Fulton/Eighth	15.6	B	16.6	B	22.0	C	22.0	C
Fulton/Arguello	13.8	B	15.0	B	15.6	B	15.6	B
Fulton/Stanyan	**67.8**	**E**	**76.3**	**E**	**>80**	**F**	**>80**	**F**
Kennedy/Stanyan	18.8	B	19.6	B	22.3	C	22.3	C
King/Crossover	34.5	C	36.7	D	**70.6**	**E**	**70.6**	**E**
Lincoln/Nineteenth	27.7	C	30.3	C	**63.6**	**E**	**63.6**	**E**
Ninth/Lincoln	26.3	C	29.0	C	38.5	D	38.5	D
Kennedy/Academy/Tea Garden[2]	14.0	B (wb)	14.8	B (wb)	13.2	B (wb)	8.3	A (eb)
Kennedy/Eighth[2]	11.0	B (wb)	11.8	B (wb)	17.9	C (sb)	36.9	E (sb)
Kennedy/Middle Drive East[2]	14.9	B (wb)	18.4	C (wb)	15.2	C (wb)	15.2	C (wb)
Kennedy/Kezar[2]	>50	F (eb)	>50	F (eb)	>50	F (eb)	>50	F (eb)
King/Tea Garden[2]	21.0	C (sb)	23.5	C (sb)	17.7	C (sb)	11.6	B (wb)
King/Academy[2]	8.9	A (eb)	9.1	A (eb)	17.3	C (wb)	16.4	C (wb)
King/Middle Drive East[2]	15.5	C (sb)	18.3	C (sb)	22.9	C (sb)	41.9	E (nb)
Middle Drive East/Bowling Green[2]	8.0	A (wb)	8.1	A (wb)	8.0	A (wb)	8.0	A (wb)
King/Kezar	7.7	A	8.1	A	8.9	A	8.9	A
MDE/Underground Through Street[2]	–	–	–	–	–	–	11.8	B (sb)

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle.

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

TABLE 17
INTERSECTION LEVEL OF SERVICE
EXISTING, BASELINE AND 2015 CUMULATIVE CONDITIONS – SUNDAY MIDDAY PEAK HOUR

	Existing		Baseline		2015 Cumulative with Phase I		2015 Cumulative with Phase II	
Intersection	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**	**LOS**
Cabrillo/Park Presidio	17.0	B	17.5	B	27.7	C	27.7	C
Cabrillo/Tenth[2]	9.5	A (wb)	9.9	A (wb)	10.7	B (wb)	10.7	B (wb)
Cabrillo/Eighth[2]	9.8	A (eb)	10.2	B (eb)	10.6	B (eb)	10.6	B (eb)
Park Presidio/Fulton	29.4	C	30.1	C	**60.2**	**E**	**60.2**	**E**
Fulton/Tenth	16.5	B	17.4	B	39.9	D	39.9	D
Fulton/Eighth	15.0	B	15.4	B	16.8	B	16.8	B
Fulton/Arguello	32.3	C	36.2	D	54.2	D	54.2	D
Fulton/Stanyan	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**
Kennedy/Stanyan	19.9	B	20.9	C	24.4	C	24.4	C
King/Crossover	35.9	C	38.0	C	**63.2**	**E**	**63.2**	**E**
Lincoln/Nineteenth	19.7	B	20.5	C	44.9	D	44.9	D
Ninth/Lincoln	13.5	B	14.1	B	17.0	B	17.0	B
Kennedy/Academy/Tea Garden[2]	–	–	–	–	–	–	–	–
Kennedy/Eighth[2]	–	–	–	–	–	–	–	–
Kennedy/Middle Drive East[2]	–	–	–	–	–	–	–	–
Kennedy/Kezar[2]	–	–	–	–	–	–	–	–
King/Tea Garden[2]	11.8	B (eb)	13.7	B (eb)	11.1	B (eb)	11.1	B (eb)
King/Academy[2]	8.2	A (eb)	8.4	A (eb)	12.5	B (wb)	12.3	B (wb)
King/Middle Drive East[2]	10.8	B (nb)	13.3	B (sb)	13.9	B (sb)	14.1	B (sb)
Middle Drive East/Bowling Green[2]	7.5	A (nb)	7.5	A (nb)	7.5	A (nb)	7.5	A (nb)
King/Kezar	10.2	B	11.7	B	10.8	B	10.8	B
MDE/Underground Through Street[2]	–	–	–	–	–	–	8.1	A (eb)

Source: Wilbur Smith Associates

Notes:

[1] Delay presented in seconds per vehicle

[2] Unsignalized intersection – LOS and delay presented for worst approach. * indicates that a second approach also operates at LOS E/F.

2015 Cumulative with Project Phase I, Parking Variant 1

During the weekday PM Peak Hour, 7 of the 21 intersections would operate with unacceptable conditions, as compared to no intersections under Baseline conditions and one intersection under Baseline plus Project Phase I, Parking Variant 1 conditions. During the Saturday midday peak hour, 4 of the 21 intersections would operate with unacceptable conditions, as compared to one intersection under Baseline conditions and one intersection under Baseline plus Project Phase I, Parking Variant 1 conditions. During the Sunday midday peak hour, 3 of the 17 intersections would operate with unacceptable conditions, as compared to one intersection under Baseline conditions and one intersection under Baseline plus Project Phase I, Parking Variant 1 conditions.

2015 Cumulative with Project Phase II, Parking Variant 1

During the weekday PM peak hour, the addition of Phase II of the Proposed Project would cause one additional intersection to operate with unacceptable conditions (Kennedy/Eighth). During both the Saturday midday and Sunday midday peak hours, the addition of Phase II of the Proposed Project would not cause any additional intersections to operate with unacceptable conditions.

CONTRIBUTION TO FUTURE CONDITIONS

To assess the effect of project-related traffic changes on the 2015 Cumulative conditions, the Phase I and Phase II contribution to the 2015 Cumulative traffic volumes was determined. Two separate percent contributions were calculated: the project-related traffic change as a percentage of the change in traffic volumes between Baseline and 2015 Cumulative conditions, and the project-related traffic as a percentage of the total 2015 Cumulative traffic volumes. Tables 18, 19 and 20 present the Phase I and Phase II percent contributions for the weekday PM, Saturday midday and Sunday midday peak hours, respectively.

As previously discussed, Phase I would accommodate traffic generated by land uses in the area, and would change traffic routes and distribution of traffic at the study intersections. As a result of the redistribution of traffic, Phase I and Phase II would result in an overall

TABLE 18
PROPOSED PROJECT'S PERCENT CONTRIBUTION TO 2015 CUMULATIVE CONDITIONS WEEKDAY PM PEAK HOUR

	Phase I		Phase II	
Intersection	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**
Cabrillo/Park Presidio	-0.4%	-0.1%	-0.4%	-0.1%
Cabrillo/Tenth	150.8%	-38.0%	150.8%	-38.0%
Cabrillo/Eighth	53.7%	-16.2%	53.7%	16.2%
Park Presidio/Fulton	**0.2%**	**0.0%**	**0.2%**	**0.0%**
Fulton/Tenth	-160.0%	-8.1%	-160.0%	-8.1%
Fulton/Eighth	**60.4%**	**15.2%**	**60.4%**	**15.2%**
Fulton/Arguello	8.7%	1.0%	8.7%	1.0%
Fulton/Stanyan	**6.1%**	**0.8%**	**6.1%**	**0.8%**
Kennedy/Stanyan	**0.1%**	**0.0%**	**0.1%**	**0.0%**
King/Crossover	**-0.1%**	**0.0%**	**-0.1%**	**0.0%**
Lincoln/Nineteenth	**-1.5%**	**-0.2%**	**-1.5%**	**-0.2%**
Ninth/Lincoln	0.8%	0.1%	0.8%	0.1%
Kennedy/Academy/Tea Garden	391.5%	-9.6%	107.4%	-104.5%
Kennedy/Eighth	**62.7%**	**11.8%**	**69.9%**	**16.4%**
Kennedy/Middle Drive East	-580.7%	-5.2%	-580.7%	-5.2%
Kennedy/Kezar	-2.2%	-0.3%	-2.2%	-0.3%
King/Tea Garden	-74.1%	-2.8%	108.5%	-63.6%
King/Academy	39.2%	3.8%	115.3%	-47.2%
King/Middle Drive East	33.2%	2.9%	74.3%	19.1%
Middle Drive East/Bowling Green	-540.4%	-5.0%	-540.4%	-5.0%
King/Kezar	12.2%	0.7%	12.2%	0.7%
MDE/Underground Through Street	-	-	91.2%	74.5%

Source: Wilbur Smith Associates

Note: Intersections operating at unacceptable conditions (LOS E or F) under 2015 Cumulative scenarios are highlighted in bold.

TABLE 19
PROPOSED PROJECT'S PERCENT CONTRIBUTION TO 2015 CUMULATIVE CONDITIONS
SATURDAY MIDDAY PEAK HOUR

	Phase I		Phase II	
Intersection	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**
Cabrillo/Park Presidio	-3.2%	-0.4%	-3.2%	-0.4%
Cabrillo/Tenth	177.3%	-28.3%	177.3%	-28.3%
Cabrillo/Eighth	26.3%	-5.0%	26.3%	5.0%
Park Presidio/Fulton	**-1.6%**	**-0.2%**	**-1.6%**	**-0.2%**
Fulton/Tenth	-13.3%	-1.4%	-13.3%	-1.4%
Fulton/Eighth	64.9%	12.0%	64.9%	12.0%
Fulton/Arguello	-38.9%	-1.9%	-38.9%	-1.9%
Fulton/Stanyan	**-12.6%**	**-1.1%**	**-12.6%**	**-1.1%**
Kennedy/Stanyan	-7.4%	-0.9%	-7.4%	-0.9%
King/Crossover	**-4.3%**	**-0.5%**	**-4.3%**	**-0.5%**
Lincoln/Nineteenth	**-3.9%**	**-0.5%**	**-3.9%**	**-0.5%**
Ninth/Lincoln	-0.5%	-0.1%	-0.5%	-0.1%
Kennedy/Academy/Tea Garden	133.7%	-27.2%	133.7%	-27.2%
Kennedy/Eighth	-35.2%	-1.6%	-35.2%	-1.6%
Kennedy/Middle Drive East	122.9%	-17.1%	122.9%	-17.1%
Kennedy/Kezar	-5.1%	-0.6%	-5.1%	-0.6%
King/Tea Garden	188.6%	-11.6%	188.6%	-11.6%
King/Academy	50.8%	5.8%	50.8%	5.8%
King/Middle Drive East	48.1%	5.2%	48.1%	-16.0%
Middle Drive East/Bowling Green	155.3%	-16.0%	155.3%	-16.0%
King/Kezar	25.1%	1.2%	25.1%	1.2%
MDE/Underground Through Street	-	-	90.6%	68.9%

Source: Wilbur Smith Associates

Note: Intersections operating at unacceptable conditions (LOS E or F) under 2015 Cumulative scenarios are highlighted in bold.

TABLE 20
PROPOSED PROJECT'S PERCENT CONTRIBUTION TO 2015 CUMULATIVE CONDITIONS
SUNDAY MIDDAY PEAK HOUR

	Phase I		Phase II	
Intersection	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**	**Contribution to Change from Baseline to 2015 Cumulative**	**Contribution to Total 2015 Cumulative**
Cabrillo/Park Presidio	-3.2%	-0.4%	-3.2%	-0.4%
Cabrillo/Tenth	8.1%	1.1%	8.1%	1.1%
Cabrillo/Eighth	-119.9%	-7.7%	-119.9%	-7.7%
Park Presidio/Fulton	**-2.2%**	**-0.3%**	**-2.2%**	**-0.3%**
Fulton/Tenth	40.8%	8.4%	40.8%	8.4%
Fulton/Eighth	40.6%	4.4%	40.6%	4.4%
Fulton/Arguello	33.6%	3.2%	33.6%	3.2%
Fulton/Stanyan	**9.6%**	**1.0%**	**9.6%**	**1.0%**
Kennedy/Stanyan	-13.4%	-1.7%	-13.4%	-1.7%
King/Crossover	**-9.7%**	**-1.1%**	**-9.7%**	**-1.1%**
Lincoln/Nineteenth	-2.4%	-0.3%	-2.4%	-0.3%
Ninth/Lincoln	-3.9%	-0.5%	-3.9%	-0.5%
Kennedy/Academy/Tea Garden	–	–	–	–
Kennedy/Eighth	–	–	–	–
Kennedy/Middle Drive East	–	–	–	–
Kennedy/Kezar	-15.4%	-2.1%	-15.4%	-2.1%
King/Tea Garden	116.1%	-31.5%	114.4%	-34.1%
King/Academy	16.1%	1.0%	26.0%	1.8%
King/Middle Drive East	-53.2%	-1.9%	-53.2%	-1.9%
Middle Drive East/Bowling Green	-2486.2%	-7.1%	-2486.2%	-7.1%
King/Kezar	-2168.7%	-2.5%	-2168.7%	-2.5%
MDE/Underground Through Street	–	–	0.0%	0.0%

Source: Wilbur Smith Associates

Note: Intersections operating at unacceptable conditions (LOS E or F) under 2015 Cumulative scenarios are highlighted in bold.

reduction in the number of vehicles at some of the study intersections, which would result in substantial negative or positive contributions.

Phase I would contribute between -580 and +390 percent to the change in traffic volumes between Baseline and 2015 Cumulative conditions during the weekday PM peak hour, between -465 and +270 percent during the Saturday midday peak hour, and between -2485 and +115 percent during the Sunday midday peak hour. The contribution to the total 2015 Cumulative volumes would typically be less than 5.0 percent. The Phase I contribution would be greatest at the intersections of Fulton/Eighth and Kennedy/Eighth, which would primarily be due to the diversion of Park traffic from Tenth Avenue to Eighth Avenue.

Since Phase II of the Project would only affect the routing of vehicles in the Music Concourse area, the contributions would be similar to those with Phase I. However, Phase II would result in a lesser contribution at the intersections of King/Tea Garden and King/Academy, but an greater contribution at the intersections of King/Middle Drive East and Middle Drive East/Concourse Bypass Tunnel.

Based on the contributions to the 2015 Cumulative conditions, the project would be considered to have a significant contribution to cumulative conditions at three of the intersections that would operate at LOS E or F: Fulton/Eighth Avenue (weekday PM, with Phase I), Kennedy/Eighth Avenue (weekday PM, with Phase I and Phase II) and King/Middle Drive East (weekday PM, with Phase II). At these locations, the Project would add a substantial number of vehicles to some of the movements which determine the overall level of service conditions at these intersections. Therefore, vehicles added to these movements by the Proposed Project would represent a considerable contribution to the 2015 Cumulative conditions.

Phase I or Phase II would not have a significant contribution to the 2015 Cumulative conditions at the other intersections that would operate at LOS E or F: Park Presidio/Fulton (weekday PM, Saturday midday, Sunday midday), Fulton/Stanyan (weekday PM, Saturday midday, Sunday midday), Kennedy/Stanyan (weekday PM), King/Crossover (weekday PM, Saturday midday, Sunday midday) and Lincoln/Nineteenth (weekday PM, Saturday midday).

At most intersections where the Project contributions were found to be not significant, the Project would add traffic to movements which would continue to operate acceptably. In some instances, the Project would add vehicles to movements which would not perform satisfactorily under the 2015 Cumulative conditions, the project-related traffic would be less than not represent a considerable contribution to the 2015 Cumulative conditions.

NOTES — Transportation

[1] This section is based on the *Golden Gate Park Concourse Authority Projects Transportation Study - Final Report*, December 10, 2002, prepared by Wilbur Smith Associates.

[2] Major arterials are defined as cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways. These are routes generally of citywide significance.

[3] The Congestion Management (CMP) Network is the network of freeways, state highways and major arterials established in accordance with state Congestion Management legislation.

[4] The Transit Preferential Street network classification system takes into consideration all transportation functions, and identifies the major transit routes where general traffic should be routed away from. There are two classifications of transit preferential streets: Primary Transit Streets, which are either transit-oriented or transit-important; and Secondary Transit Streets. Primary Transit Streets (Transit-Oriented) are not major arterials, with either high transit ridership, a high frequency of service, or surface rail. Along these streets, the emphasis should be on moving transit vehicles, and impacts on automobile traffic should be of secondary concern. Primary Transit Streets (Transit-Important) are Major arterials, with either high transit ridership, high frequency of service, or surface rail. Along these streets, the goal is to improve the balance between modes of transportation, and the emphasis should be on moving people and goods, rather than on moving vehicles. Secondary Transit Streets are medium transit ridership and low-to-medium frequency of service, or medium frequency of service and low-to-medium transit ridership, or connects two or more major destinations.

[5] The Metropolitan Transportation System (MTS) is a regional network for San Francisco of freeways, major and secondary arterials, transit conflict and recreational streets meeting nine criteria developed by the Metropolitan Transportation Commission as part of the Regional Transportation Plan. The criteria identify facilities that provide relief to congested corridors, improve connectivity, accommodate travel demand and serve a regional transportation function.

[6] The Citywide Pedestrian Network is a classification of streets throughout the City used to identify street devoted to or primarily oriented to pedestrian use. The main classifications are: Citywide Pedestrian Network Streets, which are inter-neighborhood connection with "citywide significance" includes both exclusive pedestrian and pedestrian-oriented vehicular streets.; and Neighborhood Network Streets, which are neighborhood commercial, residential or transit street that serves pedestrians from the general vicinity. As part of the Neighborhood Network Street network, streets are classified as Neighborhood Commercial Streets, which are streets that are predominately commercial use with parking and loading conflicts, or Neighborhood Network Connection Streets, which are intra-neighborhood connection streets that connect neighborhood destinations.

[7] Recreational Streets are a special category of street whose major function is to provide for slow pleasure drives and cyclist and pedestrian use; more highly valued for recreational use than for traffic movement. The order of priority for these streets should be to accommodate: 1) pedestrians, hiking trails or wilderness routes, as appropriate; 2) cyclists: 3) equestrians; 4) automobile scenic driving.

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[8] Under California Public Resources Code Section 21060.5, “environment” means “the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.”

[9] San Francisco Planning Department, *Variance Decision under the City Planning Code - Case No. 2000.1094.V,* January 28, 2002.

[10] It should be noted that the improvement identified in the Golden Gate Park Master Plan for the intersection of Fulton/Stanyan to provide additional capacity for the northbound left-turn movement was determined not to be feasible by DPT. DPT is currently reviewing potential changes at this intersection to improve traffic flow. As a result, this analysis does not assume any improvements at the intersection.

[11] Per request by the San Francisco Recreation and Park Department to minimize the increase in traffic volumes on Middle Drive East near the AIDS Memorial Grove.

E. NOISE

SETTING

FUNDAMENTALS OF SOUND AND ENVIRONMENTAL NOISE

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{dn}, the Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for

noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.

- L_{min}, the minimum instantaneous noise level experienced during a given period of time.
- L_{max}, the maximum instantaneous noise level experienced during a given period of time.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when they are below 45 dBA, moderate in the 45- to 60-dBA L_{dn} range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated natural settings that can provide noise levels as low as 20 dBA, and quiet suburban residential streets that can provide noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA).

When evaluating changes in hourly or 24-hour community noise levels, a difference of 3 dBA is a barely perceptible increase to most people.[1] A 5-dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness.[2]

Noise levels from a particular source decline as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 dBA to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures—generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

EXISTING AMBIENT NOISE LEVELS

Land uses in the vicinity of Golden Gate Park include residential, commercial, and institutional uses. Although other noise sources occur in the vicinity, vehicular traffic is the primary source of noise within and around the Park. Within the park, the Music Concourse area includes roadway areas and about 200 surface parking spaces. Construction of the New deYoung Museum is presently occurring in the Concourse area. Existing noise levels within the park are generated by construction equipment; landscape maintenance equipment; human activity and motor vehicle trips. Motor vehicles are the primary source of noise associated with Golden Gate Park.

Existing ambient daytime noise levels were measured at six selected locations around the Music Concourse on Saturday, April 27, 2002 to identify representative noise levels. Existing 24-hour noise levels were also measured at the intersection of Tenth Avenue and Fulton Street, beginning on Friday, April 26, 2002 through Sunday, April 28, 2002. The average daytime noise levels, 24-hour noise levels, and sources of noise measured at each location are identified in Table 21. (These daytime noise levels are characteristic of an urban environment.) Existing L_{max} noise levels at the intersections of Fulton and Tenth Streets, Fulton and Eighth Streets, and Kennedy Drive and Tea Garden Drive were measured at relatively high levels. However, L_{max} measures instantaneous noise which was most likely generated by a car stereo or siren during a momentary interval.

Existing 24-hour roadway noise levels have been calculated for nine representative locations within Golden Gate Park and the surrounding area. The noise levels were calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the *Golden Gate Concourse Authority Projects Transportation Study*.

TABLE 21
EXISTING NOISE LEVELS AT SELECTED LOCATIONS

Noise Measurement Location	Primary Noise Sources	Noise Level Statistics		
		L_{eq}	L_{min}	L_{max}
1. Academy Drive near California Academy of Sciences	Traffic on Academy Drive, people entering and existing Academy, strollers, lots of children	64.4	46.8	78.7
2. Northwest corner of Kennedy Drive and Middle Drive East	Traffic Kennedy Drive and Middle Drive East, people walking by, talking, birds, dogs strollers	62.2	48.3	78.5
3. Middle Drive East near California Academy of Sciences	Traffic on Middle Drive East, people walking by, people playing sports	59.8	45.5	78.5
4. Southeast corner of Kennedy Drive and Tea Garden Drive	Traffic on Kennedy Drive and Tea Garden Drive, people waling by, talking, bicycles	69.6	54.3	85.9
5. Roadway behind Spreckels Music Temple	Roadway traffic, people walking by and talking, birds	59.0	50.1	77.5
6. Northeast corner of Fulton Street and Eighth Avenue	Roadway traffic	71.2	54.6	85.1
7. AIDS Memorial Grove	Distant roadway traffic and construction activities, people talking	57.1	41.6	78.7
8. Southwest corner of Fulton Street and Tenth Avenue	Roadway traffic	71.5	41.0	99.0

Sources: EIP Associates, 2002, Illingworth & Rodkin, 2002.

The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans.[3] The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.[4] The calculated noise levels are presented in Table 22.

TABLE 22
EXISTING AND FUTURE NOISE LEVELS

	Noise Levels in dBA L_{dn}							
			Baseline with Phase I		Baseline with Phase II		2015 Cumulative Plus	
Roadway Segment	**Existing Noise Levels**	**Baseline**	**Traffic Volumes**	**Increase**	**Traffic Volumes**	**Increase**	**Traffic Volumes**	**Increase**
Weekday								
Kennedy Drive, west of 10th Street	59.4	59.5	59.4	-0.1	59.4	-0.1	59.7	0.3
Kennedy Drive, east of 8h Avenue	61.0	61.1	61.0	-0.1	61.0	-0.1	61.3	0.3
King Drive, west of Tea Garden Drive	58.0	58.1	58.1	0.0	58.1	0.0	58.3	0.3
King Drive, east of Academy Drive	60.4	60.4	60.6	0.2	58.8	-1.6	59.1	-1.3
King Drive, south of Middle Drive East	60.4	60.4	60.6	0.2	60.6	0.2	60.9	0.5
Tea Garden Drive. Along Music Concourse	58.5	58.5	58.2	-0.3	47.9	-10.6	48.3	-10.2
Northwest corner of Fulton Street and 10th Avenue	72.4	72.4	72.1	-0.3	72.1	-0.3	72.7	0.3
Northeast corner of Fulton Street and 8th Avenue	72.5	72.5	73.1	0.6	73.1	0.6	73.6	1.1
Saturday								
Kennedy Drive, west of Tenth Street	58.0	58.7	58.3	-0.4	58.3	-0.4	58.4	0.4
Kennedy Drive, east of 8th Avenue	57.5	59.9	59.0	-0.9	59.0	-0.9	59.3	1.8
King Drive, west of Tea Garden Drive	58.3	58.9	58.7	-0.2	58.7	-0.2	58.8	0.5
King Drive, east of Academy Drive	59.5	59.8	60.2	0.4	59.4	-0.4	59.7	0.2
King Drive, south of Middle Drive East	59.7	59.9	60.4	0.5	60.4	0.5	60.7	1.0
Tea Garden Drive. Along Music Concourse	57.8	58.1	57.2	-0.9	50.4	-7.7	50.7	-7.1
Northwest corner of Fulton Street and 10th Avenue	71.6	71.8	71.8	0.0	71.8	0.0	72.3	0.7
Northeast corner of Fulton Street and 8th Avenue	71.6	71.8	72.3	0.5	72.3	0.5	72.6	1.0
Sunday								
King Drive, west of Tea Garden Drive	58.2	58.8	59.7	0.9	57.9	-0.9	58.1	-0.1
King Drive, east of Academy Drive	58.6	59.1	59.1	0.0	59.2	0.1	59.4	0.8
King Drive, south of Middle Drive East	58.4	59.0	59.0	0.0	59.0	0.0	59.2	0.8
Tea Garden Drive. Along Music Concourse	53.3	53.4	50.9	-1.5	50.4	-3.0	50.7	-2.6
Northwest corner of Fulton Street and 10th Avenue	71.8	71.9	72.2	0.3	72.2	0.3	72.8	1.0
Northeast corner of Fulton Street and 8th Avenue	71.9	71.9	72.2	0.3	72.2	0.3	72.4	0.5

Source: EIP Associates, 2002.

NOISE REGULATIONS

San Francisco noise regulations are stipulated in Article 29 of the Police Code, which states that the City's policy is "to prohibit unnecessary, excessive and offensive noises from all sources subject to police power." Sections 2907 and 2908 of Article 29 regulate construction equipment and construction work at night.

Section 2907 (b) states "it shall be unlawful for any person, including the City and County of San Francisco, to operate any powered construction equipment, regardless of age or date of acquisition, if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance." Exemptions to this requirement include:

- Impact tools and equipment with intake and exhaust mufflers recommended by the manufacturers and approved by the Director of Public Works as best accomplishing maximum noise attenuation; and
- Pavement breakers and jackhammers equipped with acoustically attenuating shields or shrouds recommended by the manufacturers and approved by the Director of Public Works as best accomplishing maximum noise attenuation.

Section 2908 prohibits any person, between the hours of 8:00 PM of any day and 7:00 AM of the following day, to erect, construct, demolish, excavate for, alter, or repair any building or structure if the noise level created is in excess of the ambient noise level by 5 dBA at the nearest property line unless a special permit therefore has been applied for and granted by the Director of Public Works.

The San Francisco Recreation and Park Commission's Permit and Reservation Policy, established in Resolution No. 9705-073 and adopted May 15, 1997, limits outdoor use of stationary sound amplification equipment and lists acceptable sound levels allowed in parks, plazas, and squares. These guidelines were created by the Recreation and Park Commission to apply to musical concerts and outdoor events and, therefore, would not apply to the proposed project.

IMPACTS

SIGNIFICANCE CRITERIA

The project would be considered to have a significant impact if it would exceed average noise levels of 80 dBA during project construction (excluding impact tool use), at a 100-foot distance from the source. The project would also be considered to have a significant impact if it causes a permanent (i.e., long term operational) increase of 3 dBA L_{dn} or more over ambient noise levels at any noise-sensitive land use location.

PROJECT EFFECTS

Phase I - Underground Parking Facility and Concourse Surface Improvements

Construction

Temporary construction activities associated with the proposed Underground Parking Facility and surface improvements to the Music Concourse are expected to occur over a period of approximately three years. Four basic types of activities would be expected to occur and generate noise levels during construction. First, some existing structures within the Music Concourse would be demolished and existing surface features cleared. Second, following demolition, the development sites would be excavated and/or graded to accommodate the new parking facility and surface improvements. Third, the parking facility and surface improvements would then be constructed and readied for use. Finally, new landscaping would be planted around the project site.

The three-year construction period is considered to be short-term and temporary. This is not to say that construction emissions could not cause adverse noise effects. Construction activities would generate noise levels that could adversely affect the surrounding area. During each stage of development there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The US Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. These data are presented in Table 23. Noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 to 7.5 dBA per doubling of distance. For example, a noise level of 84 dBA L_{eq} measured at 50 feet from the noise source to the receptor would reduce to 78 dBA L_{eq} at 100 feet from the source to the receptor, and reduce by another 6 dBA to 72 dBA L_{eq} at 200 feet from the source to the receptor. Table 23 does not show noise levels for pile driving or blasting operations since they would not occur at the site during the construction of the proposed project.

TABLE 23
TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level at 50 Feet dBA L_{eq}	Noise Level at 50 Feet with Mufflers dBA L_{eq}
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Exterior Finishing	89	86

Source: U.S. EPA, 1971

Construction activities would primarily impact the existing buildings in the Music Concourse area, including the deYoung Museum, and the California Academy of Sciences. Based on the information presented in Table 23, construction noise levels could reach up to 89 dBA L_{eq} during the daytime at these buildings. Assuming that the noise levels would be reduced by 6.0 dBA at a distance of 100 feet from the construction area, they could also exceed the City's 80 dBA L_{eq} standard during the excavation/grading and exterior finishing phases of development. This impact is, therefore, potentially significant without mitigation. As shown in Table 23, noise levels from construction activities could be reduced with the use of mufflers on construction equipment. These mufflers would reduce the overall noise levels during construction to less than 80 dBA L_{eq} at a distance of 100 feet from the construction sites.

When completed, the proposed Underground Parking Facility and surface improvements would not generate any new sources of noise. The primary noise effect of the proposed Underground Parking Facility and surface improvements would be the resulting changes in local circulation patterns and the resulting localized changes in roadway noise levels. As was done to assess existing noise levels, the FHWA Highway Noise Prediction Model was used to predict future noise levels within Golden Gate Park and the surrounding area following the completion of Phase I. The results of the noise level modeling are shown in Table 22. As shown, the changes in motor vehicle trips and circulation patterns would increase local noise levels by a maximum of 0.6 dBA L_{dn}, which is inaudible/imperceptible to most people. The noise levels along several roadway links would be reduced as a result of the changes in circulation patterns that would occur under Phase I of the project.

Because the roadway noise levels at all locations would increase by less than 3 dBA L_{dn}, Phase I of the Underground Parking Facility and surface improvements would not generate increased local traffic volumes that cause a substantial permanent increase in ambient noise levels in the project vicinity. This impact would be less than significant.

The Underground Parking Facility would include a ventilation system incorporating three street-level air intake shafts. Additionally, the ventilation system would introduce two ventilation structures in the Music Concourse area. The ventilation structures would be up to 14 feet in diameter and approximately 10 feet high. The ventilation structures would be constructed east of the Music Concourse and would be located within the existing tree line south of the intersection of Tea Garden and Kennedy Drives, near the Pershing Monument (see Figure 5, p. 11).

Some noise would be audible from the ventilation structures. However, the ventilation structures, mechanical elements, and muffling features would be designed to limit audible noise above ambient conditions. The 10-feet high ventilation structures would be located away from where people generally congregate for long periods of time, which would also limit adverse noise effects.

Phase II — Underground Through Street

Construction activities and noise levels occurring under Phase II would be similar to Phase I and, considered potentially significant without mitigation. As discussed for Phase I, construction activities would include noise controls to limit adverse effects.

As with Phase I, the primary noise effect of the Underground Through Street would be the resulting changes in local circulation patterns. Table 22 shows predicted future noise levels within the park and surrounding area following the completion of Phase II. As shown, the changes in motor vehicle trips and circulation patterns would increase local noise levels by a maximum of 0.6 dBA L_{dn}, which is inaudible/imperceptible to most people. The noise levels along several roadway links would be reduced as a result of the changes in circulation patterns that would occur under both phases of the project.

Other Proposition J Projects

Other Proposition J Projects including the Intra-Park Shuttle, traffic calming measures, other parking management, road closures, MUNI service improvements, and the Cultural Shuttle, would be expected to improve circulation conditions in the Park and would not have adverse noise effects.

CUMULATIVE NOISE EFFECTS

Cumulative noise impacts would occur primarily as a result of increased traffic assuming completion of Phase I and Phase II due to the proposed Golden Gate Concourse Authority Projects, the deYoung Museum and California Academy of Sciences projects, and other cumulative traffic growth. Construction noise would occur from on-going activities at the New deYoung Museum, the Golden Gate Park Concourse Authority projects (Phase I and Phase II, if implemented), and the proposed California Academy of Sciences to about 2007. Construction activities would occur at development sites within the vicinity of the Concourse; they would not result in cumulative noise impacts, since the noise levels would be isolated in the immediate vicinity of the development sites.

Therefore, cumulative traffic-generated noise impacts have been assessed based on the difference between the existing traffic noise levels and the future traffic noise levels in 2015 with the Golden Gate Concourse Authority Projects. The change in noise levels is presented in Table 22. As shown, the increase in noise levels along all of the roadway segments within the vicinity would increase by 1.8 dBA L_{dn} or less. Because the future noise levels at all locations would increase by less than 3 dBA L_{dn}, cumulative development including the Golden Gate Concourse Authority Projects would not result in a substantial and permanent increase in ambient noise levels in the project vicinity and the contribution of the Golden Gate Concourse Authority Projects would not be cumulatively considerable.

NOTES — Noise

[1] U.S. Department of Transportation. Federal Highway Administration. 1980. *Highway Noise Fundamentals.*

[2] Ibid.

[3] Hendriks, Rudolf W. 1987. *California Vehicle Noise Emission Levels (FHWA/CA/TL-87/03).*

[4] Ibid.

F. AIR QUALITY

SETTING

APPLICABLE PLANS AND REGULATIONS

Ambient Air Quality Standards

Federal, state, and local laws and regulations form the foundation for controlling air pollution. The federal *Clean Air Act,* including amendments of 1990, and the *California Clean Air Act of 1988* specify that federal and state regulatory agencies set upper limits on the airborne concentrations of six criteria air pollutants. National Ambient Air Quality Standards exist for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter, and lead.[1] Reactive organic gases (ROG) and oxides of nitrogen (NO_x) are also regulated as precursor contaminants that react in the atmosphere to form ozone, and particulate matter is regulated as inhalable particulate matter ten microns or smaller in diameter (PM_{10}).

Federal and state standards for these pollutants are upper limits designed to protect all segments of the population including those most susceptible to the pollutants' adverse effects (e.g., children, the elderly, people weak from illness or disease, or persons doing heavy work or exercise).

Air Quality Management Plans

The federal *Clean Air Act*, as amended, and the *California Clean Air Act* provide the legal framework for attaining and maintaining the ambient air quality standards. Both the federal and state acts require that the California Air Resources Board designate as "nonattainment areas" portions of the state where federal or state ambient air quality standards are not met. Where a pollutant exceeds standards, air quality management plans must be formulated that demonstrate how the standards will be achieved. These laws also provide the basis for the implementing agencies to develop mobile and stationary source performance standards.

BAAQMD is primarily responsible for planning, implementing, and enforcing the federal and state ambient standards in the Bay Area. EPA approval of the *1982 Bay Area Air Quality Plan* (referred to as the *1982 Plan),* which indicates how the BAAQMD will implement federal air quality requirements, resulted in the *1982 Plan* being incorporated into the *State Implementation Plan.* The region's *State Implementation Plan* is a compilation of plan components and air pollution control regulations that when taken together are designed to enable the region to attain and maintain the federal standards. Along with the BAAQMD, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments also contribute to the *State Implementation Plan.* The BAAQMD updated the *1982 Plan* and adopted the *Bay Area '91 Clean Air Plan* to implement the requirements of the *California Clean Air Act of 1988.* As required by the *California Clean Air Act* and subsequent 1992 amendments, the BAAQMD also prepared the *1994 Clean Air Plan Update*, the *Bay Area '97 Clean Air Plan*, and the *Bay Area 2000 Clean Air Plan.* The state ozone standard and the state PM_{10} standard are exceeded (violated) in the region. To meet the state ozone standard, the BAAQMD adopted the *2000 Clean Air Plan* on December 20, 2000 and submitted it to the California Air Resources Board (ARB) as required by the *California Clean Air Act.* The *2000 Clean Air Plan* includes a control strategy review to ensure that the plan continues to include "all feasible measures" to reduce ozone. No state plan is required to meet state PM_{10} measures.

In 1998, the Bay Area was redesignated as nonattainment for the federal ozone standards. Under the EPA's direction, the BAAQMD prepared and submitted the *Bay Area Ozone Attainment Plan* in June 1999 (referred to as the *1999 Plan*) as a revision to the *State Implementation Plan*. This attainment plan was partially rejected by EPA. The parts of the *1999 Plan* that were disapproved include ozone attainment assessment, consistency of regional transportation plans and programs with air quality attainment plans, and the Reasonably Available Control Measure demonstration. In response to EPA's disapproval of the *1999 Plan*, a *Bay Area 2001 Ozone Attainment Plan* (Final Plan) was prepared in June 2001 by the BAAQMD, MTC, and the Association of Bay Area Governments. This Final Plan was initially rejected by the California ARB prior to its submittal to the EPA. Addenda to this plan were presented to the California ARB in October 2001, approved, and submitted to the EPA for approval of the Final Plan.

The State Implementation Plan measures for reducing emissions of reactive organic compounds and nitrogen oxides affect all source categories. Emissions limitations are imposed upon sources of air pollutants by rules and regulations promulgated by the federal, state, or local agencies. Mobile sources of air pollutants are largely controlled by federal and state agencies through emission performance standards and fuel formulation requirements. The BAAQMD regulates stationary sources through its permitting and compliance programs. The BAAQMD is responsible for implementing stationary source performance standards and other requirements of federal and state laws.

Local environmental plans and policies also recognize community goals for air quality. The *San Francisco General Plan* includes the 1997 Air Quality Element.[2] The objectives specified by the City include the following:

- Objective 2: Reduce mobile sources of air pollution through implementation of the Transportation Element of the *General Plan.*
- Objective 3: Decrease the air quality impacts of development by coordination of land use and transportation decisions.
- Objective 5: Minimize particulate matter emissions from road and construction sites.
- Objective 6: Link the positive effects of energy conservation and waste management to emission reductions.

AIR QUALITY CONDITIONS

Climate

The San Francisco Bay Area's regional meteorological conditions are cool and dry in the summers and mild and moderately wet in the winters. A daytime sea breeze provides fresh air to the Bay Area, but also tends to cause temperature inversions by positioning cool surface air underneath warmer upper-air. The inversions limit vertical motion of pollution and cause pollution potential to be the highest in the sheltered valleys throughout the region and in the subregions that are not directly affected by the marine air entering through the Golden Gate.[3]

Regional and Local Air Quality

The nine-county San Francisco Bay Area Air Basin has a history of recorded violations of federal and state ambient air quality standards for ozone, carbon monoxide, and inhalable particulate matter. Since the early 1970s, the Bay Area has made progress toward controlling these pollutants. The progress has led the area to attaining all state and federal standards except those for ozone and PM_{10}. The Bay Area is an ozone nonattainment area for state and federal purposes. Although the Bay Area does not meet the state standard for PM_{10}, it meets the federal standard.

The criteria pollutants for which national and State standards have been promulgated that are most relevant to air quality planning and regulation in the Bay Area are ozone, fine suspended particulate matter, and carbon monoxide. Each of these is briefly described below.

- *Ozone* is a gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NOx), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- *Fine Suspended Particulate Matter (PM_{10})* consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM_{10}, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM_{10} is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- *Carbon Monoxide (CO)* is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- *Toxic Air Contaminants* refer to a diverse group of air pollutants that can affect human health, but have not had ambient air quality standards established for them.

The BAAQMD operates air quality monitoring stations in San Francisco at 10 Arkansas Street (at the foot of Potrero Hill) and at 939 Ellis Street (near the Civic Center). Either location would probably be representative of conditions in the project vicinity; however, the Ellis

Street station monitors only carbon monoxide. Peak carbon monoxide concentrations observed at the Ellis Street station tend to be higher than those observed at Arkansas Street. Because the Project Area is located both within and/or close to the downtown area, carbon monoxide concentrations would also tend to be higher than those observed at the Arkansas Street station. Ozone and particulate matter data at the Arkansas Street station show the following:

- During the period of 1999 through 2001, the state 1-hour ozone standard and the federal 1-hour and 8-hour ozone standards were not exceeded (violated) on any day at the Arkansas Street station.
- During the period of 1999 through 2001 at the Arkansas Street station, the state 24-hour PM_{10} standard was exceeded in no more than 10 percent of the samples per year, the federal 24-hour standard was not exceeded at all, and the state and federal annual standards were not exceeded at all. The federal standards were not exceeded in the district.

The regional and local air quality data show that the region has made considerable progress toward meeting the state and federal standards. At this time, the region does not meet ozone standards, and violations of the state and federal standards for ozone continue to persist. Pollutants tend to be carried away from San Francisco into the more sheltered areas of the region and cause violations of the standards there. In this manner, regional benefits would occur with efforts to control San Francisco's emissions.

The emission sources that currently exist in the Concourse vicinity are traffic-related; such as Fulton Street or Kennedy Drive

IMPACTS

SIGNIFICANCE CRITERIA

The BAAQMD CEQA Guidelines identifies significance criteria to assist lead agencies in evaluating potential air quality impacts of projects. The City of San Francisco utilizes these criteria when evaluating proposed development projects and plans. As such, the proposed project may result in significant air quality impacts if it (1) causes localized CO concentrations near congested intersections to exceed national and/or State standards or contributes substantially to CO concentrations that exceed standards without the project, (2) generates new sources of operational emissions that generate 80 pounds per day (ppd) of ROG, NOx, or PM_{10}, or (3) generates objectionable odors affecting a substantial number of people.

PROJECT EFFECTS

Phase I - Underground Parking Facility and Concourse Surface Improvements

Construction

Construction activities associated with the proposed Underground Parking Facility and surface improvements to the Music Concourse are expected to occur over a period of approximately three years. Four basic types of activities would be expected to occur and generate emissions during construction. First, some existing structures within the Music Concourse would be demolished and existing surface features cleared. Following demolition, the development sites would be excavated and/or graded to accommodate the new parking facility and surface improvements. The parking facility and surface improvements would then be constructed and readied for use. Finally, new landscaping would be planted around the project site.

In the overall life of the project, the three-year construction period is considered to be short-term and temporary. This is not to say that construction emissions could not cause adverse effects on air quality. Construction activities would generate airborne dust that could adversely affect the surrounding area. The principal pollutant of concern would be PM_{10}.

The *BAAQMD GEQA Guidelines* recommends an analytical approach that obviates (does away with) the need to quantitatively estimate and evaluate construction emissions. Because construction-related PM_{10} emissions primarily affect the area surrounding a project site, the BAAQMD recommends that all dust control measures that the BAAQMD considers to be feasible, depending on the size of the project, be implemented to reduce the localized impact to the maximum extent. The measures that would apply to the proposed project include the following:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.
- Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site.
- Install wind breaks at the windward sides of the construction areas
- Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.

Implementation of these measures is consistent with Objective 3 of the *San Francisco General Plan 2000 Air Quality Element*.

With regard to construction equipment and construction employees, the BAAQMD does not consider the emissions generated by these sources to cause a significant impact. One of the reasons for this is that the construction industry is an existing source of emissions within the Bay Area, and the entire state. In general, construction equipment operates at one site for a short-term basis and, when finished, then moves on to a new construction site. The same situation occurs for the construction employees who make a living going from one site to another doing similar construction work. To minimize daily emissions, however, construction equipment should be kept properly in tune at all times and should be shut off when not being actively operated for more than five minutes.

Because these measures would be implemented in accordance with standard City practice, construction activities associated with the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. This is a less-than-significant impact.

Construction activities could generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. These emissions would occur during daytime hours only and would be isolated to the immediate vicinity of the construction sites and activity. As such, they would not affect a substantial number of people or cause a significant impact.

Operations

When completed, the proposed Underground Parking Facility and surface improvements would not generate any new sources of air pollutant emissions. They do not include any new equipment that would generate emissions. They are also not considered to be new destination sources. Instead, they would accommodate the people and vehicles accessing the Park. Therefore, the project would not generate new operations with emission of ROG, NO_x or PM_{10}.

The primary air quality affect of the proposed Underground Parking Facility and surface improvements would be the changes in local circulation patterns and the resulting localized concentrations of air pollutants.

The BAAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the BAAQMD and presented in its *CEQA Guidelines*. The simplified model is intended as a screening analysis in order to identify a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

Maximum existing CO concentrations were calculated for the intersections evaluated in the Golden Gate Concourse Authority Projects Transportation Study that operate at level of service (LOS) D, E, or F (these intersections have greater congestion and, therefore, higher localized concentrations of CO). The results of these calculations are presented in Tables 24 and 25 for representative receptor locations at 50 feet from each roadway. These distances were selected because they represent locations where a person may be living, working, or resting at or near the Park for more than one hour at a time. As shown, under worst-case conditions, existing CO concentrations near all of the study area intersections would not exceed national or State 1-hour and 8-hour ambient CO standards.

The results of air emissions modeling are shown in Tables 24 and 25. As shown, future CO concentrations near these intersections would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards when the Underground Parking Facility is operational. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the potential impacts of the Underground Parking Facility and surface improvements would be less than significant.

The Underground Parking Facility would include a ventilation system incorporating three street-level air intake shafts. Additionally, the ventilation system would introduce ventilation structures around the Music Concourse area. The ventilation structures would be up to 14 feet in diameter and approximately 10 feet high, east of the Music Concourse and would be located within the existing tree line south of the intersection of Tea Garden and Kennedy Drives, near the Pershing Monument. These three structures would not be visible from the Music Concourse.

The primary air pollutant of concern that would be emitted through the ventilation structures would be CO, since it is directly emitted from motor vehicles. CO does not adversely affect plant life, only breathing animals. Therefore, the emissions of CO from these structures would not affect the surrounding vegetation. The localized CO emissions would also be similar to those of the existing parking areas and roadways in the Park. The emission of CO from these structures would not adversely affect people at Golden Gate Park, since the

TABLE 24
1-HOUR LOCALIZED CARBON MONOXIDE CONCENTRATIONS

Intersection	CO Concentrations in Parts per Million[1] at 50 Feet Existing	Existing Plus Phase I	Existing Plus Phase II	2015 Cumulative Plus Phase II
Weekday Traffic				
Park Presidio/Fulton	11.8	10.4	10.4	9.9
Fulton/Stanyan	8.4	7.9	7.9	7.6
Kennedy/Stanyan	11.3	10.1	10.1	9.7
King/Crossover	13.4	11.1	11.1	10.3
Lincoln/Nineteenth	12.4	10.9	10.9	10.3
Ninth/Lincoln	9.3	8.5	8.5	8.1
Kennedy/Academy/Tea Garden	7.7	7.3	6.4	6.3
Kennedy/Middle Drive East	7.0	6.7	6.7	6.5
Kennedy/Kezar	12.0	10.6	10.6	10.2
King/Tea Garden	6.9	6.6	6.3	6.2
King/Middle Drive East	6.9	6.7	7.0	6.8
Weekend Traffic				
Park Presidio/Fulton	11.7	10.3	10.3	9.8
Fulton/Stanyan	8.5	8.0	8.0	7.6
Kennedy/Stanyan	10.3	9.4	9.4	8.9
King/Crossover	13.4	11.0	11.0	10.3
Lincoln/Nineteenth	12.2	10.7	10.7	10.1
Ninth/Lincoln	8.7	8.1	8.1	7.8
Kennedy/Academy/Tea Garden	7.7	6.7	6.3	6.2
Kennedy/Middle Drive East	7.0	6.5	6.5	6.3
Kennedy/Kezar	12.0	9.8	9.8	9.3
King/Tea Garden	6.9	6.6	6.3	6.6
King/Middle Drive East	6.9	6.6	6.8	6.6

Source: EIP Associates, 2002.

Notes:

[1] National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.

TABLE 25
8-HOUR LOCALIZED CARBON MONOXIDE CONCENTRATIONS

	CO Concentrations in Parts per Million[1] at 50 Feet			
Intersection	Existing	Existing Plus Phase I	Existing Plus Phase II	2015 Cumulative Plus Phase II
Weekday Traffic				
Park Presidio/Fulton	8.2	7.3	7.3	6.9
Fulton/Stanyan	5.9	5.5	5.5	5.3
Kennedy/Stanyan	7.9	7.1	7.1	6.8
King/Crossover	9.4	7.7	7.7	7.2
Lincoln/Nineteenth	8.7	7.6	7.6	7.2
Ninth/Lincoln	6.5	5.9	5.9	5.7
Kennedy/Academy/Tea Garden	5.4	5.1	4.5	4.4
Kennedy/Middle Drive East	4.9	4.7	4.7	4.6
Kennedy/Kezar	8.4	7.4	7.4	7.1
King/Tea Garden	4.8	4.6	4.4	4.3
King/Middle Drive East	4.9	4.7	4.9	4.7
Weekend Traffic				
Park Presidio/Fulton	8.2	7.2	7.2	6.9
Fulton/Stanyan	6.0	5.6	5.6	5.4
Kennedy/Stanyan	7.2	6.6	6.6	6.2
King/Crossover	9.4	7.7	7.7	7.2
Lincoln/Nineteenth	8.5	7.5	7.5	7.1
Ninth/Lincoln	6.1	5.6	5.6	5.5
Kennedy/Academy/Tea Garden	5.4	4.7	4.4	4.3
Kennedy/Middle Drive East	4.9	4.5	4.5	4.4
Kennedy/Kezar	8.4	6.8	6.8	6.5
King/Tea Garden	4.8	4.6	4.4	4.7
King/Middle Drive East	4.9	4.7	4.8	4.6

Source: EIP Associates, 2002.

Notes:

[1] National 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.

localized concentrations of CO near the roadways in the study area would not exceed adopted standards, there would be much fewer vehicles operating within the Underground Parking Facility than on the roadways, the ventilation structures would be 10 feet high and the ventilation structures would be located away from where people would congregate for long periods of time.

Ozone would be the pollutant that could potentially adversely affect nearby vegetation. Ozone would not be emitted from the ventilation structures in any discernable amounts. As discussed previously, ozone is formed when ROG and NOx, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. This generally occurs in the upper atmosphere at substantial distances from the source of the pollutants. Therefore, the emissions of ROG and NOx from these structures would be similar to the existing parking spaces and roadways in the Music Concourse area and would not adversely affect the surrounding vegetation.

Phase II – Underground Through Street

Construction

Construction activities and emissions occurring under Phase II would be similar to Phase I and, based on the recommendations of the BAAQMD, not considered significant with the implementation of the mitigation measures discussed previously.

Operations

As with Phase I, the primary air quality effect of the underground street and tunnel would be the resulting changes in local circulation patterns and the resulting localized concentrations of air pollutants. Tables 24 and 25 shows the future CO concentrations at the study intersections in the vicinity of the project site following the completion of Phase II. As shown, future CO concentrations near these intersections would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards when Phase II is completed. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the potential impacts of the overall Underground Parking Facility and surface improvements would be less than significant.

Other Proposition J Projects

The Intra-Park Shuttle would provide vehicular shuttle service throughout Golden Gate Park using existing roadways. This is expected to result in a slight reduction of vehicular traffic in the Park. It would also result in a corresponding reduction in vehicular traffic generated emissions. This is considered a beneficial air quality effect of Proposition J.

Traffic Calming

Proposed traffic calming measures would consist of changes in pathway widths and other changes to existing circulation routes, signage, and other measures that would slow or reduce traffic throughout the Park. These proposed measures, as part of the Golden Gate Park Concourse Authority Projects, are consistent with traffic control measures adopted in the 2000 Clean Air Plan to reduce motor vehicle emissions. This is considered a beneficial air quality effect.

Parking Management

As part of the Golden Gate Park Concourse Authority Projects, Parking Management would include timed parking and other improvements identified to limit commuter parking and provide safe and reliable parking for recreational users. This would reduce the amount of time that visitors would otherwise need to drive around before they are able to find a place to park and, therefore, reduce the emissions generated by these vehicles. This is considered a beneficial air quality effect.

Bicycle and Pedestrian Improvements

Bicycle and Pedestrian Improvements to be undertaken by the Golden Gate Park Concourse Authority would be consistent with those identified in the *Golden Gate Park Master Plan*. The improvements would include repair and maintenance of existing paths, improved signage to identify bicycle and pedestrian paths, and construction of new dedicated circulation routes for bicycle and pedestrian use. These improvements would promote the use of non-motorized, non-polluting means of accessing and enjoying Golden Gate Park as a whole. They are also consistent with bicycle access and pedestrian travel measures adopted in the 2000 Clean Air Plan to reduce motor vehicle emissions.

Road Closures

Future road closures in Golden Gate Park would occur on existing roadways and would be intended to reduce vehicular traffic in the Park. They would also result in a corresponding reduction is vehicular traffic generated emissions. This is considered a beneficial air quality effect.

MUNI Service Improvements

MUNI service improvements are intended to improve transit service to the Park. They would also reduce the number of private motor vehicles that would otherwise be used to travel to and from the Park and their associated emissions. This is considered a beneficial air quality effect of Proposition J.

Cultural Shuttle

A Cultural Shuttle, as identified in Proposition J, would provide a transit link between cultural institutions and facilities outside Golden Gate Park with those inside the Park. Planning for this shuttle is in preliminary stages and may require additional review to assess potential environmental impacts. However, the Cultural Shuttle would use zero-emissions vehicles with approximately 20- to 35-passenger capacity. This would not only not generate any new emissions, it would also reduce the number of private motor vehicles that would otherwise be used to travel to and from the Park and their associated emissions. This is a beneficial air quality effect.

CUMULATIVE EFFECTS

The BAAQMD neither recommends quantified analyses of cumulative construction emissions nor provides thresholds of significance that should be used to assess cumulative construction impacts. As discussed previously, construction activities are an existing source of emissions within the Bay Area. Construction equipment operates at one site for a short-term basis and, when finished, then moves on to a new construction site. The same situation occurs for the construction employees who make a living going from one site to another doing similar construction work. Because all of the appropriate and feasible construction-related measures recommended by the BAAQMD would be implemented in accordance with standard City practice, the contribution of construction emissions associated with the proposed project would not be cumulatively considerable.

With regard to operational emissions, the BAAQMD recommends several methodologies to determine the cumulative impacts of individual projects. For any project – such as the proposed Golden Gate Concourse Authority Projects, as presented above, – that does not have significant operational air quality impacts, the determination of significant cumulative impact would be based on an evaluation of the consistency of the project with the local general plan and of the general plan with the current Clean Air Plan.

The *San Francisco General Plan* includes the *Air Quality Element*. This element is consistent with the *2000 Clean Air Plan*. The proposed project is consistent with the land use designations for Golden Gate Park and is consistent with the *Golden Gate Park Master Plan*. As discussed previously in this section, the fugitive dust control measures that would be implemented during project construction are consistent with Objective 3 of the *San Francisco General Plan Air Quality Element*. Several of the other Proposition J projects discussed in this EIR are also consistent with the transportation control measures adopted in the 2000 Clean Air Plan to reduce motor vehicle emissions. For these reasons, the operational characteristics of the proposed Golden Gate Concourse Authority Projects (Phase I and Phase II) would not cause a cumulatively considerable increase in regional air pollutants.

Localized concentrations of CO would change as a result of cumulative growth in the project vicinity. Tables 24 and 25 show the future CO concentrations at the study intersections in the vicinity of the project site in 2015 with cumulative development that includes the Golden Gate Concourse Authority Projects. As shown, future CO concentrations near these intersections would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the impact of cumulative development would not be significant.

NOTES — Air Quality

[1] National Ambient Air Quality Standards have been established for criteria pollutants, named for the "criteria" documents that justified their regulation.

[2] City and County of San Francisco, Planning Department, Air Quality - An Element of the *General Plan* of the City and County of San Francisco, July 1997.

[3] BAAQMD, *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans,* April 1996, Revised December 1999, Appendix D.

G. GROWTH INDUCEMENT

A project may foster spatial, economic, or population growth in a geographic area and would be considered growth inducing if it meets any one of the following criteria: removal of an impediment to growth; economic expansion or growth; establishment of a precedent setting action, innovation, or change; or development of or encroachment on an isolated area of open space.

The proposed project would include development of an Underground Parking Facility. Employment at the site would increase to about three staff members during daily operations. Open space and pedestrian improvements would also be proposed as part of the project. Lastly, transportation and circulation improvements would occur as part of the project.

The Underground Parking Facility itself would replace existing surface parking in Golden Gate Park by a one-to-one ratio. The project would, therefore, not create any additional parking overall. The project would reorganize the location of parking. The Music Concourse itself would continue to function in a recreational and open space capacity.

Changes are not anticipated to significantly intensify use of the various buildings in the area beyond that which currently exists for the adjacent institutions. These changes would not be expected to result in economic expansion or growth or encroachment upon undeveloped open space.

Transportation improvements including the Underground Through Street and other circulation changes proposed as part of the project would provide alternate means of access for existing traffic within and through the Park. Transportation elements would not disrupt the physical arrangement of existing transportation routes and would not be expected to increase the overall use of transportation routes. Since a roadway network adjacent to and near the site already exists and no new roadways external to the Park are proposed, transportation and circulation changes are not anticipated to result in the removal of an impediment to growth.

Employment growth would be minimal and it would not be reflected directly in increased demand for housing and City services to residents, as new jobs could be filled by individuals who already live and work in the City; who live in the City but previously either did not work, or worked outside the City; who live in surrounding communities; or by those unable to afford or locate housing in the City. Therefore, the project would not result in an expansion of the municipal infrastructure due to development and increased employment in the area.

The proposed Underground Parking Facility, Concourse surface improvements, Underground Through Street, and traffic and transportation improvements throughout the Park, and other Proposition J projects would be consistent with the current uses and land use plans for the Park, and would not result in a precedent setting action.

Because none of the four growth inducing criteria are met by the project, the proposed project would not be considered growth inducing.

IV. MITIGATION MEASURES PROPOSED TO MINIMIZE POTENTIAL ADVERSE IMPACTS OF THE PROJECT

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the project. Some of these measures have been, or would be, adopted by the project sponsor and, therefore, are proposed as part of the project; some are under consideration. Implementation of some measures may be the responsibility of public agencies.

Each mitigation measure and its status are discussed below. Measures from the Initial Study (see Appendix A, p. A.1) proposed as part of the project are indicated with an asterisk (*) and follow mitigation measures of topics discussed in the EIR. Mitigation measures identified in this EIR and in the Initial Study would be required by decision makers as conditions of project approval unless they are demonstrated to be infeasible based on substantial evidence in the record. Some measures included in this section are Improvement Measures that would reduce adverse effects of the project which would not otherwise be significant impacts.

A. TRANSPORTATION

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

The Project Sponsor would work with the Department of Parking and Traffic (DPT), Recreation and Park Department, Department of Public Works, and/or the Planning Department to implement the following measures.

Phase I

1. Under the Baseline plus Phase I, Parking Variants 1 and 2 scenario, the proposed project would result in a significant impact to the **Fulton/Eighth** intersection during the weekday PM peak hour. Restripe the northbound approach of the intersection to provide a left-turn pocket (convert the existing left-through-right lane into a through-right lane). Restriping of the northbound approach would require the elimination of on-street parking along the both the east and west sides of Eighth Avenue between Fulton Street and Kennedy Drive. With this measure, the intersection operations would improve to LOS C.

This intersection would operate at LOS B during the Saturday midday peak hour with signalization.

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

Surface Circulation

2. The following Improvement Measures would improve vehicular circulation in and around the Music Concourse area to account for the effects associated with Phase I:

   a. Redirect and re-sign the access from Park Presidio Boulevard to Golden Gate Park in the vicinity of the Music Concourse. Separate directions could be provided for access to the garage (Tenth Avenue) and the Park (Eighth Avenue).

   b. With Phase I, possibly reroute inbound traffic from Park Presidio Boulevard away from Tenth and Eighth Avenues. For instance, vehicles could be directed to turn right at Cabrillo Street, turn left to Fourteenth Avenue, and turn left to Fulton Street. In conjunction, explore the feasibility of creating a left-turn pocket from southbound Park Presidio to eastbound Fulton Street, and a left-turn pocket from westbound Fulton Street to southbound Crossover Drive to improve access between the garage and Park Presidio/Crossover Drive/Nineteenth Avenue.

   c. With Phase II, reconfigure the intersection of Kennedy/Academy/Tea Garden to physically restrict access between Kennedy Drive and Academy/Tea Garden Drives, except for Muni and emergency vehicles only.

   d. With Phase II, redirect and re-sign access from north of the Park (Eighth Avenue) and Kennedy Drive to the Music Concourse area via the Underground Through Street.

Garage Operations

3. The following improvement measures would improve operations of the Phase I parking facility:

   a. Install variable electronic signage at the entrances to provide information regarding the availability of parking within each level and each side of the facility and whether the parking is fully occupied. Provide signage along Fulton Street (for traffic in the eastbound, westbound, and southbound directions) and Academy Drive to notify potential parkers of the current garage occupancy. These signs would be operated by garage staff, and would include video cameras to monitor the queuing situation at the garage entrances.

b. Coordinate with institutions holding special events so that special staffing arrangements and changes to the vehicular circulation would occur; and station parking control officers at the intersection of King/Academy to direct and control exiting traffic (to ensure that vehicles do not block northbound Academy Drive traffic) after special events.

Parking

4. The following improvement measures would improve parking conditions to account for the effects associated with Phase I:

   a. Install signage throughout the Park and the major access roadways directing vehicles to the parking facility and coordinate with the California Academy of Sciences, deYoung Museum and Hagiwara Japanese Tea Garden staff to include directions, hours of operation and parking rates on the institutions' telephone system, web site and other informational material.

Transit

5. The following improvement measures would improve transit operations to account for the effects associated with the proposed project:

   a. Install the relocated Muni bus stops at 11th/Fulton and a new traffic signal with pedestrian actuation and new crosswalks at 11th/Fulton. This signal would be interconnected with the signal at Tenth/Fulton to minimize delays to vehicles on Fulton Street.

   b. Restripe the northbound approach at the intersection of Fulton/Eighth to provide a left-turn pocket. Although this measure was listed as a mitigation measure for traffic impacts under the Baseline plus Project Phase I conditions, it could be performed separately to improve bus operations along Eighth Avenue.

   c. Eliminate on-street parking along King Drive to reduce the potential for conflicts between parking vehicles and buses. These spaces could be included as part of the 800 surface parking spaces to be eliminated with the construction of the garage.

   d. Develop measures to improve bus operations along King Drive, including the provision of a reversible transit-only lane on King Drive. Muni has expressed interest in improving transit operations along King Drive to improve existing conditions, primarily delays to buses in the southbound direction. Additional analyses may need to be performed along King Drive to determine if changes to the roadway configuration would be possible.

Pedestrians

6. Phase I:

   a. With Phase I, install pedestrian crossing signals (i.e., WALK/DON'T WALK indicators) at Fulton/Eighth and Fulton/Tenth to improve pedestrian crossing of Eighth Avenue and Tenth Avenue, respectively. Pedestrian crossing signals are already provided at these intersections for crossing Fulton Street.

   b. The pedestrian signals would help facilitate pedestrian movements at these locations. Install pedestrian crossing signals (i.e., WALK/DON'T WALK indicators) at Lincoln/ Ninth to improve pedestrian crossing of Lincoln Way and Ninth Avenue; establish crosswalks at all new intersections created (or intersections substantially reconfigured) with the proposed project; and reconstruct the intersection of King/Academy to tighten the radius at the corners to reduce distance for pedestrians to cross intersection and to reduce the travel speed of vehicles.

Bicycles

7. With Phase I, provide a bicycle lane or wide curb lane on Academy Drive and Tea Garden Drive as part of the Music Concourse surface improvements.

Loading

8. With Phase II, redirect and re-sign access from north of the Park (Eighth Avenue) and Kennedy Drive to the Music Concourse area via the Underground Through Street. Coordinate with the California Academy of Sciences, deYoung Museum and Hagiwara Japanese Tea Garden staff to reroute delivery/service vehicles and tour/school buses to account for the closure of the connection between Kennedy Drive and Academy/Tea Garden Drives

Construction

9. With Phase I and Phase II, determine feasible traffic mitigation measures to reduce traffic congestion, including transit disruption and pedestrian circulation impacts during construction of the proposed project. In addition, the project sponsor would need to develop detailed construction detour plans to redirect vehicular, transit, bicycle and pedestrian traffic when Kennedy Drive is closed and when Academy and Tea Garden Drives are closed. It may be possible to construct a single-lane bridge (using steel plates) to mitigate circulation impacts associated with the construction closure of Kennedy Drive.

   The temporary parking demand by construction workers could be met within the on-street parking in the Park, especially to the area west of the Music Concourse and would not affect general parking conditions in the adjacent neighborhoods. However, if time-limited parking is implemented prior to completion of the parking garage, construction workers would need to park on King Drive west of Crossover Drive and west of Stow Lake on Kennedy Drive.

Since construction of the proposed project would overlap with construction of the New deYoung and the rehabilitation/reconstruction of the CAS, the construction contractor(s) for each project would need to coordinate their construction schedules and activities to avoid conflicts. In addition, it may be possible to coordinate deliveries and hauling between the projects to minimize the number of trucks destined to and from the projects site each day. Furthermore, it may be possible to share construction worker parking locations, either off-site or within the proposed project after the garages are constructed.

It is anticipated that the construction contractor for each phase or project would work with the various City departments (including Planning, Muni, DPT, DPW, or the Fire Department) to develop a detailed and coordinate plan to address construction vehicle routing, traffic control, pedestrian walks and transit stop relocation.

Mitigation Measure for Year 2015 Cumulative Conditions

With 2015 Cumulative with Phase I conditions, eight intersections would operate at LOS E or F during either the weekday PM peak hour, Saturday midday peak hour or Sunday midday peak hour. Phase II would result in a significant impact at one additional intersection during the weekday PM peak hour. Based on the contribution to the 2015 Cumulative conditions, the Project would be considered to have a significant contribution to cumulative conditions at three of the intersections that would operate at LOS E or F:

- Fulton/Eighth (with Phase I),
- Kennedy/Eighth (with Phase I and with Phase II): and
- King/Middle Drive East (with Phase II). At the other intersections that would operate at LOS E or F, the project would not have a significant contribution to the 2015 Cumulative conditions.

Intersections with Significant Project Contributions

The following mitigation measures would improve the 2015 Cumulative intersection operations to acceptable conditions.

10. Fulton/Eighth (Phase I – weekday PM): Restripe the northbound approach to provide a left-turn pocket (convert the existing left-through-right lane into a through-right lane) and create a westbound left-turn pocket. It should be noted that the provision of the

northbound left-turn pocket and westbound left-turn pocket would require the elimination of on-street parking on Eighth Avenue and Fulton Street (but could fit within the existing street right of way). With this mitigation measure, the intersection operations would improve to LOS C. With these changes, the intersection would continue to operate acceptably during the Saturday midday and Sunday midday peak hours.

11. Kennedy/Eighth (Phase I – weekday PM): Restripe the southbound approach to provide a left-turn pocket (convert the existing left-right lane into a right-turn only lane). It should be noted that it would be possible to create this southbound left-turn pocket with the proposed northbound left-turn pocket at Fulton Street (see above), with each pocket about 100 feet long. With this mitigation measure, operations at the worst approach at the intersection would improve to LOS E, and all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably. With this change, the intersection would continue to operate acceptably during the Saturday midday peak hour.

12. Kennedy/Eighth/Underground Through Street (Phase II – weekday PM): Signalize intersection. With this measure, the intersection operations would improve to LOS C. With this change, the intersection would operate at LOS B during the Saturday midday peak hour.

13. Kennedy/Middle Drive East (Phase II – weekday PM): Restripe the northbound approach to provide a right-turn pocket (convert the existing through-right lane into a through-only lane) and restripe the southbound approach to provide a left-turn pocket (convert the existing through-left lane into a through-only lane). The provision of these turn pockets would require the elimination of on-street parking along both northbound and southbound King Drive. With this mitigation measure, operations at the worst approach at the intersection would continue to operate at LOS E, but all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably. With these changes, the intersection would continue to operate acceptably during the Saturday midday and Sunday midday peak hours.

Intersections with Less-than-Significant Project Contributions for which Mitigation Measures can be Developed

The following mitigation measures would improve the 2015 Cumulative intersection operations to acceptable conditions. The Project would not be considered to have a significant contribution to cumulative conditions at these intersections:

14. Park Presidio/Fulton (Saturday midday, Sunday midday): Retime the intersection signal to increase the cycle length (from 85 to 90 seconds) and increase the proportion of green time provided to Park Presidio Boulevard. With this mitigation measure, the intersection operations would improve to LOS D on Saturday and Sunday peak hours. However, these changes would not improve operations in the weekday PM peak hour

to acceptable conditions. It should be noted that signal timing changes are not typically considered mitigation measures, as they are anticipated to occur through DPT's continuing intersection monitoring program. The signal at this intersection is coordinated with the other signals along Park Presidio Boulevard to ensure traffic flow in the northbound and southbound directions. As a result, a signal timing analysis may need to be performed for Park Presidio Boulevard to determine if the proposed signal timing changes and increase in cycle length would be feasible.

15. Fulton/Stanyan (weekday PM, Saturday midday and Sunday midday): Restripe the southbound approach to convert the right-turn only lane to a through-right lane, prohibit eastbound and westbound left-turns during Saturday and Sunday midday periods (similarly to what already occurs during the weekday PM peak period) and retime the signal.[1] The restriping of the southbound approach would require the elimination of on-street parking along the west side of Stanyan Street south of the intersection. In addition, it is anticipated that left-turn prohibition would be in effect seven days of the week between 7:00 AM and 7:00 PM. With this measure, the intersection operations would improve to LOS D during the weekday PM peak hour, Saturday midday peak hour and Sunday midday peak hour.

16. Kennedy/Eighth (weekday PM): Restripe the southbound approach to provide a left-turn pocket (convert the existing left-right lane into a right-turn only lane). It should be noted that it would be possible to create this southbound left-turn pocket with the proposed northbound left-turn pocket at Fulton Street (see above), with each pocket about 100 feet long. With this measure, operations at the worst approach at the intersection would improve to LOS E, and all other approaches would operate acceptable. As a result, the intersection would be considered to operate acceptably.

B. NOISE

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

17. The project contractor would use equipment and trucks with noise control (e.g., improved exhaust mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts. Before project construction, all construction equipment (except for impact tools, pavement breakers and jackhammers) will be tested to ensure that equipment noise does not exceed an average level of 80 dBA at 100 feet.

18. The project contractor would prohibit truck and heavy equipment operations during the nighttime hours (8:00 PM to 7:00 AM) to minimize potential disturbance of adjacent residents.

19. The project contractor would locate stationary construction noise sources, such as compressors, as far from adjacent residences as possible. If it were necessary to locate equipment near existing residences, they shall be enclosed within temporary sheds.

20. The project contractor would use hydraulically or electrically powered impact tools (e.g., jack hammers, pavement breakers and rock drills) wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA.

21. The project sponsor would require project construction contractor(s) to pre-drill piling holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. If pile driving is required, the project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.

C. AIR QUALITY / CLIMATE

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

22. The project sponsor would require the contractor(s) to spray unpaved areas of the site with water during excavation and construction activities at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soil, sand or other such material; sweep paved access roads, parking areas, staging areas and surrounding streets during excavation and construction at least once per day to reduce particulate emissions; hydroseed or apply non-toxic soil stabilizers to inactive construction areas and exposed stockpiles; limit traffic speeds on unpaved roads to 15 miles per hour; install sandbags or other erosion control measures to prevent silt runoff to public roadways; replant vegetation in disturbed areas as quickly as possible; install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site; install windbreaks at the windward sides of the construction areas; and suspend excavation and grading activities when wind (instantaneous gusts) exceeds 25 miles per hour.

23. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the construction period.

D. GEOLOGY / TOPOGRAPHY

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

24. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponso would ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent building for damage during construction, if recommended by the geotechnical engineer.

25. If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments would be used to monitor potential settlement and subsidence. If, in the judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor shall delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

    If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

26. The project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

E. WATER QUALITY

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

27. If dewatering were necessary, the project sponsor would follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.

If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

28. The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

F. HAZARDS

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

29. In addition to local, state, and federal requirements for handling hazardous materials and soil and groundwater containing chemical contaminants, the project sponsor would enter into a voluntary remedial action agreement with the Department of Public Health pursuant to Health and Safety Code Section 101480 et seq. At a minimum, the project sponsor would undertake the following work and any additional requirements imposed by the Department of Public Health under the agreement.

    a. Phase I Environmental Site Assessment would be prepared for the project site. It would list current and past uses of the site, review environmental agency databases and records, report site reconnaissance observations, and summarize potential contamination issues, including any that warrant further investigation. The assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

       If warranted on the basis of the Phase I study, a Phase II Environmental Site Assessment would be prepared for the project site. It would involve the collection and analysis of soil and groundwater samples as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. The project sponsor would conduct a soil and groundwater investigation to assess the potential for possible fuel releases from former underground fuel storage tanks and ancillary piping and dispensers located on site. Soil or groundwater samples, or both, would be collected throughout the project site as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. This assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

       If the Phase I or Phase II assessments result in earth-moving activity that requires preparation of a Site Safety and Health Plan, in addition to measures that protect on-site workers, the plan would include measures to minimize public exposure to contaminated soils. Such measures would include dust control, appropriate site security, restriction of public access, and posting of warning signs, and would apply from the time of surface disruption through the completion of earthwork construction.

b. Prior to any demolition or excavation at the project site, surveys would be conducted to identify any potentially hazardous materials (other than asbestos and lead) in existing buildings or building materials. At a minimum, these surveys would identify any polychlorinated biphenyls, mercury, or other hazardous materials that would require removal and disposal before demolition. These surveys would be completed by a Registered Environmental Assessor or a similarly qualified individual.

c. All reports and plans prepared in accordance with this mitigation measure would be provided to the San Francisco Department of Public Health and any other agencies identified by the Department of Public Health. When all hazardous materials have been removed from existing buildings, and soil and groundwater analysis and other activities have been completed, as appropriate, the project sponsor would submit to the San Francisco Planning Department and the San Francisco Department of Public Health (and any other agencies identified by the Department of Public Health) a report stating that the mitigation measure has been implemented. The report would describe the steps taken to comply with the mitigation measure and include all verifying documentation. The report would be certified by a Registered Environmental Assessor or a similarly qualified individual who states that all necessary mitigation measures have been implemented.

G. CULTURAL RESOURCES

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

30. Archaeological Resources

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures would be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor would retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archeology. The archaeological consultant would undertake an archaeological testing program as specified herein. In addition, the consultant would be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant would prepare an archaeological research design (ARD) that would include an historical context, an assessment of research potential in terms of research questions, and an evaluation of the significance as an historical resource (CEQA Guidelines Sect. 15064.5 (a)(c)) of the expected archaeological resources. The archaeological consultant's work would be conducted in accordance with this measure at the direction of the ERO. All plans and reports to be prepared by the consultant as specified herein would be submitted first and directly to the ERO for review and comment, and would be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend project construction activities for up to a maximum of four weeks. At the direction of the ERO, the suspension of project activities can be extended beyond four weeks only if such a suspension is necessary and is the only feasible means to reduce to a less than significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant would prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program would be conducted in accordance with the approved ATP. The ATP would identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and locations recommended for testing. The purpose of the archaeological testing program would be to determine to the extent possible the presence or absence of archaeological resources, to identify any archaeological resources found, and to evaluate the significance of any archaeological resources found as an historical resource.

At the completion of the archaeological testing program, the archaeological consultant would submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant would determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

a. the proposed project would be re-designed so as to avoid any adverse effect on the significant archaeological resource; or

b. data recovery program would be implemented.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program would be implemented, the archaeological monitoring program would minimally include the following provisions:

- The ERO in consultation with the archaeological consultant would determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., would require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;
- The archaeological consultant would advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;
- The archaeological monitor(s) would be present on the project site until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;
- The archaeological monitor would record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit would cease. The archaeological monitor would be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the resource is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity would be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant would immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant would make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources were encountered, the archaeological consultant would submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program would be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO would meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant would submit the a draft ADRP to the ERO. The ADRP would identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods would not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP would include the following elements:

- *Field Methods and Procedures*. Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis*. Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy*. Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program*. Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures*. Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report*. Description of proposed report format and distribution of results.
- *Curation*. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity would comply with applicable State and Federal laws. This would include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who would appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD would make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant would submit a Draft Final Archaeological *Resources* Report (FARR) to the ERO evaluating the historical importance of the archaeological resource and describing the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s). Information that may put at risk any archaeological resource would be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR would be distributed as follows: the San Francisco Redevelopment Agency (number of copies as required by SFRA); California Archaeological Site Survey Northwest Information Center (1 copy) and the President of the Landmarks Preservation *Advisory* Board (1 copy). The Major Environmental Analysis division of the Planning Department would receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

31. Historic Resources

Impacts on the Rhododendron Dell resulting from Phase II reduce by observing all of the *Secretary of the Interior's Standards for Rehabilitation*. The location and siting of the Kennedy Drive vehicular ramp could be reconsidered with a greater effort to retain and preserve the historic features and character of the historic resource. Design considerations should maintain the exclusive pedestrian character of the Rhododendron Dell. A landscape plan should coordinate efforts to rehabilitate Park vegetation damaged by the construction and to protect the integrity of the Rhododendron Dell. Measures should also be taken to protect existing planting beds and ornamental trees. This measure would reduce but not eliminate a significant adverse impact to historic resources of the Rhododendron Dell.

NOTES — Mitigation Measures

[1] It should be noted that these changes have been discussed with DPT, and their preliminary assessment has found them to be feasible.

V. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21100 (b)(2)(A) of the California Environmental Quality Act (CEQA), and Section 15126.2(b) of the State CEQA Guidelines, this chapter identifies significant impacts that could not be eliminated or reduced to an insignificant level by implementing mitigation measures included as part of the project or by other mitigation measures that could be implemented, identified in Chapter IV, Mitigation Measures. This chapter is subject to final determination by the San Francisco Planning Commission as part of the certification process for the EIR. If necessary, this chapter will be revised in the Final EIR to reflect the findings of the Planning Commission.

As discussed in Chapter III, Environmental Setting and Impacts, implementation of Phase II, the Underground Through Street, would result in a significant environmental effect on historical resources that could only be reduced or eliminated by selection of an alternative project design, size, or location of the Underground Through Street: Phase II would remove landscape and windbreak vegetation and would have an unavoidable significant effect on the historic character of the Rhododendron Dell, an area of Golden Gate Park considered individually eligible for listing on the California Register of Historical Resources.

Year 2015 cumulative conditions at Park Presidio/Fulton, Kennedy/Stanyan, King/Crossover, and Lincoln/19th would result in intersection Levels of Service E or F, a significant adverse cumulative effect. No mitigation measures that would avoid those unacceptable Levels of Service have been identified. However, traffic conditions resulting from the proposed project, Phase I or Phase II would not make a considerable contribution to this significant unavoidable impact.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

This chapter identifies alternatives to the proposed project and discusses environmental impacts associated with these alternatives. The project decision-makers could approve an alternative instead of the proposed project, if that alternative would reduce or eliminate significant impacts of the project, and would feasibly attain the proposed project objectives. The determination of feasibility will be made by project decision-makers on the basis of substantial evidence in the record, which shall include, but not be limited to, information presented in the EIR and in comments received on the Draft EIR.

As discussed in Chapter V, the EIR identifies significant environmental effects on historical resources that could only be reduced or eliminated by selection of an alternative design, size, or location. Phase II, the Underground Through Street, would have an unavoidable significant effect on the Rhododendron Dell, an area of Golden Gate Park considered eligible for listing on the California Register of Historic Resources. Chapter V also identifies significant adverse impacts on intersection conditions at Fulton/Eighth (Phase I, weekday PM) and Kennedy/Eighth/ Underground Through Street (Phase II, weekday PM). These effects could be avoided with mitigation measures identified in Chapter IV. Year 2015 cumulative conditions at Park Presidio/Fulton, Kennedy/Stanyan, King/Crossover, and Lincoln/19th could not be avoided. Phase I or Phase II traffic would not be a considerable contribution to a the significant unavoidable impact at those intersections.

This chapter reviews the following alternatives: a No-Project Alternative; a Reduced Development (No Through Road) Alternative; two Circulation Alternatives retaining the through road, one with a variation of the entrances and roadway alignment and one which replaces the through road with a surface road; and a third Circulation Alternative that includes a new vehicular tunnel, traffic loop, and entrance for the eastern end of the Music Concourse vicinity.

A. ALTERNATIVE A: NO PROJECT

DESCRIPTION

The No-Project Alternative would entail no changes in Golden Gate Park; Proposition J projects would not be implemented. The proposed Underground Parking Facility and the Underground Through Street would not be built. Monuments, architectural features, and landscaping on the project site would not be altered or relocated. Middle Drive East, John F. Kennedy Drive, Academy Drive, Tea Garden Drive, Tenth Avenue, Eighth Avenue and Fulton Street would not be altered. The Music Concourse would continue to be used for surface parking, open space, seating, and pedestrian pathways. However, some traffic and surface improvements examined and approved under the *Golden Gate Park Master Plan* would still occur on the site.

IMPACTS

If the No-Project Alternative were implemented, none of the potential impacts associated with the proposed project would occur. The environmental characteristics of this alternative would be generally as described in the environmental setting sections of Chapter III. Excavation and construction for the Underground Parking Facility and Underground Through Street would not occur and the topography of the site would not be altered. Circulation in the Music Concourse area would not change and historic monuments and vegetation in the Rhododendron Dell would remain in their current locations. Visual and land use conditions would stay the same.

This alternative would retain the Music Concourse in its present condition with several changes. Improvements would still occur based on the *Golden Gate Park Master Plan* including restoration of existing elements in the Concourse such as statues and monuments, paths and stairways, fountains, traffic islands, benches, lighting, flower, turf and shrub areas, replacement of trees, and more appropriate trash receptacles. Other improvements in the area would include instillation of a Park information kiosk, restoration of the reflecting pond adjacent to the deYoung Museum, road closures, traffic calming, the Intra-Park Shuttle, parking management, bicycle and pedestrian improvements, improved accessibility, and evaluation of structural stability of tunnels and subsequent rehabilitation where necessary.

Thus, even if the project did not proceed, the Music Concourse area would be subject to retrofit and accessibility requirements.

Future transportation, noise, and air quality conditions described as conditions with cumulative growth would occur, but without the project contribution. (As noted in Chapter III, project contributions to unavoidable significant cumulative transportation effects at four intersections, and to cumulative noise, and air quality effects would be less than considerable.)

B. ALTERNATIVE B: PHASE I ONLY

DESCRIPTION

This alternative would provide an Underground Parking Facility only, consistent with Phase I of the proposed project. All of the project elements would be consistent with Phase I of the project described in Chapter II of the EIR. All of the alternatives that include Phase I of the proposed project would also consider the variant to the southwest pedestrian tunnel described in Chapter II. Therefore, these alternatives would result in similar impacts to those associated with the variant described in Chapter III.

IMPACTS

This alternative would have the same impacts on air quality, noise, visual quality, transportation, land use, and historic resources that Phase I of the proposed project would. In general, each new element of this alternative conforms to the Secretary's Standards and would not create any significant impacts to historic resources. This alternative would avoid significant adverse impacts to the Rhododendron Dell because the alternative would not develop the Underground Through Street and ramp at Eighth Avenue and Kennedy Drive, which would result in excavation of certain portions of the windbreak protecting the Dell, an area of Golden Gate Park considered eligible for listing on the California Register of Historic Resources.

This alternative would still create significant adverse traffic impacts on intersection conditions at Fulton/Eighth Avenue during the weekday PM peak-hour. These effects could be avoided with mitigation measures identified in Chapter IV. Cumulative impacts would be similar to those with the proposed project.

As with the Phase I and Phase II of the project, this alternative would not create local CO emissions in excess of federal or state standard. In addition, the alternative would not generate emissions reactive organic compounds and nitrogen oxides that would adversely contribute to cumulative air quality effects.

Project construction activities associated with this alternative would temporarily increase noise levels in the area, but would be reduced with mitigation measures identified in Chapter IV, and operational and cumulative impacts would not result in adverse impacts.

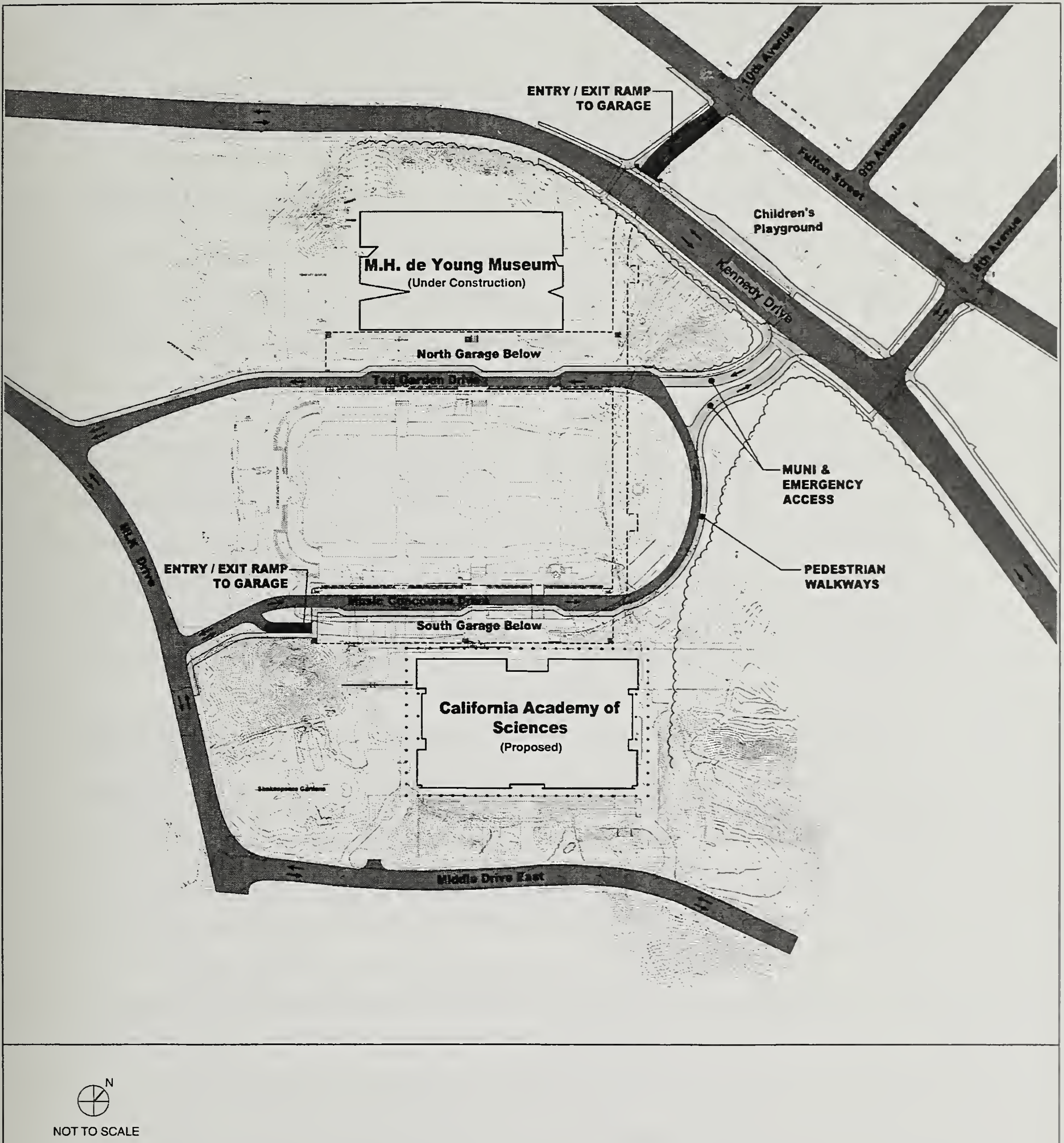
C. ALTERNATIVE C: PHASE I WITH MUNI AND EMERGENCY VEHICLE ACCESS

DESCRIPTION

This alternative would provide an Underground Parking Facility only, consistent with Phase I of the proposed project. With this alternative, however, through access would be eliminated between Kennedy Drive and the Music Concourse, with the exception of access for MUNI and emergency vehicles (see Figure 25). The connection between Kennedy Drive and the Music Concourse roadways (Academy Drive and Tea Garden Drive) would be restricted to Muni and emergency vehicles only. Vehicular access to the Music Concourse roadways for pick-up and drop-off, buses and taxis would be restricted to a one-way loop, with Academy Drive (northbound) and Tea Garden Drive (southbound) connecting to King Drive.

IMPACTS

This alternative would have the same impacts on air quality, noise, visual quality, land use, and historic resources that Phase I of the proposed project would. In general, this alternative would conform to the Secretary's Standards and would not create any significant impacts to historic resources. This alternative would eliminate impacts to the Rhododendron Dell because the project would no longer involve development of the Underground Through Street and ramp at Eighth Avenue and Kennedy Drive, which would result in excavation of certain portions of the windbreak protecting the Dell.



SOURCE: Gordon H. Chong & Partners

FIGURE 25: ALTERNATIVE C - PHASE I WITH MUNI AND EMERGENCY VEHICLE ACCESS

This alternative would still create significant adverse traffic impacts on intersection conditions at Fulton/Eighth Avenue during the weekday PM. These effects could be avoided with mitigation measures identified in Chapter IV. Cumulative impacts would be similar to those with the proposed project.

Alternative C would be considered to have a significant impacts at the Kennedy Drive/Middle Drive East and the King Drive/Middle Drive East intersections. The following mitigation measures have been identified to avoid impacts:

- **Kennedy/Middle Drive East (weekday PM):** Restripe the northbound approach to provide separate right-turn and left-turn lanes, restripe the eastbound approach to provide a right-turn pocket (convert the existing through-right lane into a through-only lane) and restripe the westbound approach to provide a left-turn pocket (convert the existing through-left lane into a through-only lane). It should be noted that the restriping of the three approaches would require the elimination of on-street parking along both the east and west sides of Middle Drive East and the north and south sides of Kennedy Drive. With this measure, operations at the worst approach would improve to LOS E, but all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably.
- **King/Middle Drive East (weekday PM):** Restripe the northbound approach to provide a right-turn pocket (convert the existing through-right lane into a through-only lane) and restripe the southbound approach to provide a left-turn pocket (convert the existing through-left lane into a through-only lane). It should be noted that the provision of these turn pockets would require the elimination of on-street parking along both northbound and southbound King Drive. With this measure, operations at the worst approach at the intersection would continue to operate at LOS E, but all other approaches would operate at LOS D or better. As a result, the intersection would be considered to operate acceptably.

As with the project, this alternative would not create local CO emissions in excess of federal or state standards; the alternative would not generate emissions of reactive organic compounds and nitrogen oxides that would adversely contribute to cumulative air quality effects.

Project construction activities associated with this alternative would temporarily increase noise levels in the area, but would be reduced with mitigation measures identified in Chapter IV, and operational and cumulative impacts would not result in adverse impacts.

D. ALTERNATIVE D: RAMP UNDER KENNEDY DRIVE TO UNDERGROUND THROUGH STREET

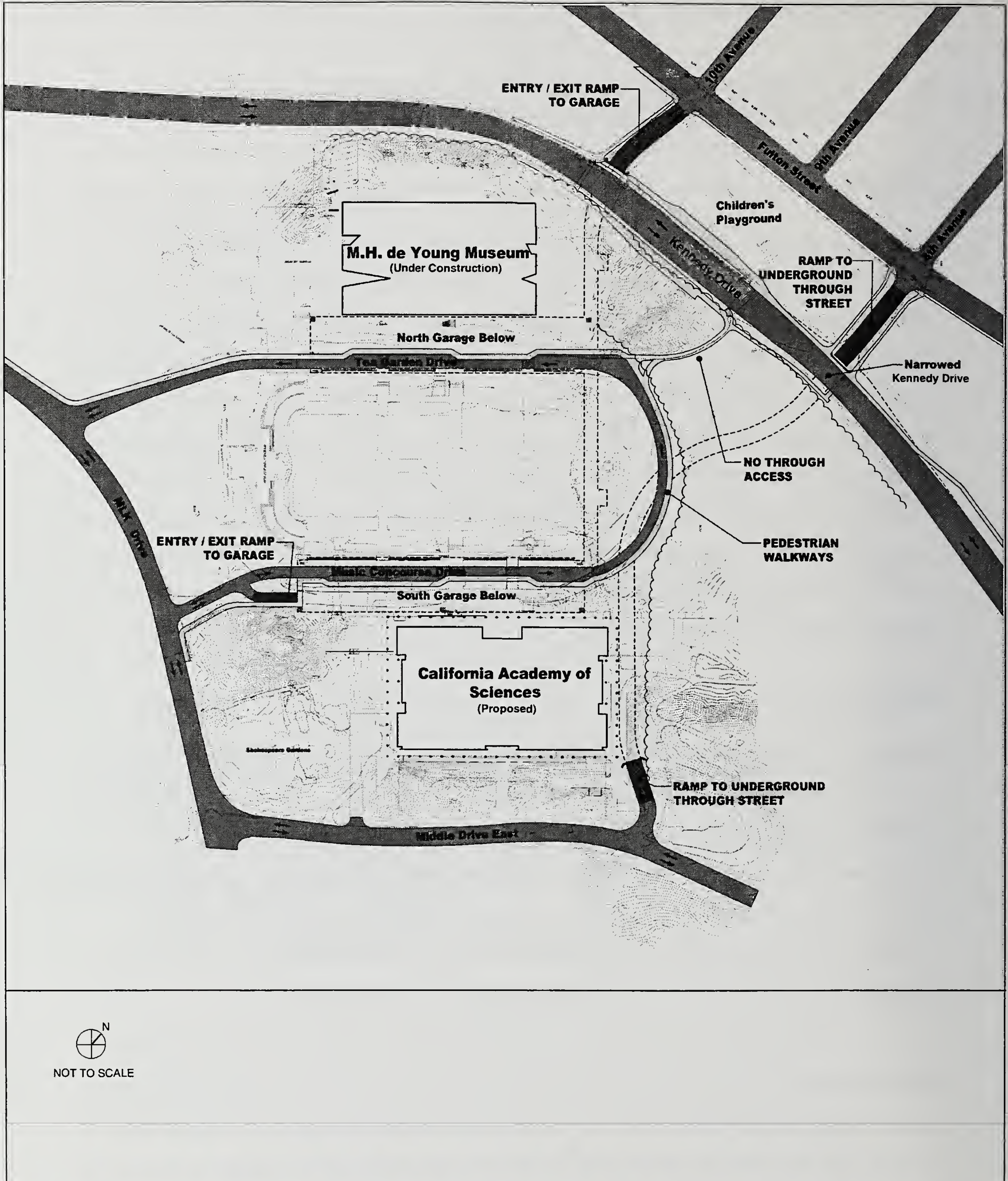
DESCRIPTION

Alternative D would include the Parking Facility and an Underground Through Street (see Figure 26). The through street would include a ramp at Eighth Avenue, with a grade-separation under John F. Kennedy Drive, continuing as an underground street to a Middle Drive East ramp. The through street would not connect to the parking facility. The Kennedy Drive grade separation would require narrowing of Kennedy Drive, and possibly realigning it to the south, to provide adequate grades for the Eighth Avenue entry. This alternative would change circulation conditions at Eighth Avenue and Kennedy Drive and may displace park landscaping and existing monuments east of the Concourse. This alternative would remove all access between Tea Garden Drive and Kennedy Drive. An alternate route for MUNI, which currently enters the Concourse from Eighth Avenue at Fulton Street, would be required; the alternate route is not known at this time.

IMPACTS

Impacts on historical resources would be the same as discussed with Phase II of the proposed project. The historical integrity of the Rhododendron Dell as an individual reserve eligible for listing on the California Register of Historic Resources would be diminished by the alternative. However, this Phase II alternative would temporarily remove the windbreak at the edge of the Rhododendron Dell where the road would ramp down below Kennedy Drive. Therefore, the windbreak for the Dell would be reestablished and rehabilitated following construction in accordance with the Golden Gate Park Master Plan.

The new entry ramp would alter existing circulation features in the Park by eliminating the Eighth Avenue surface entrance and connection to Kennedy Drive, but would not threaten the overall design integrity of the Park and would restore conditions in the Rododendron Dell. Overall, this Phase II alternative would not have an undesirable adverse impact on historic resources.



SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 26: ALTERNATIVE D - RAMP UNDER KENNEDY DRIVE TO UNDERGROUND THROUGH STREET

Impacts on visual resources would be similar to the proposed project with the exception of the Eighth Avenue ramp to the Underground Through Street, which would now be located north of Kennedy Drive, altering the view entering the Park. However, in the context of the larger Park area, this change would not be likely to degrade overall visual quality or obstruct any scenic views.

Alternative D would be considered to have significant impacts to the intersection operating conditions at the intersections of Fulton/Stanyan, King/Crossover and King/Middle Drive East during the weekday PM peak hour, at the intersections of Fulton/Stanyan, King/Crossover and King/Middle Drive East during the Saturday midday peak hour. In addition, the closure of the connection between Kennedy Drive and the Music Concourse roadways to all traffic would require a reroute of the 44-O'Shaughnessy line to other existing roadways within the Park or to the Underground Through Street, as determined by MUNI.

The following mitigation measures have been developed to address the intersection impacts:

- **Fulton/Stanyan (weekday PM, Saturday midday):** Restripe the southbound approach to convert the right-turn only lane to a through-right lane, prohibit eastbound and westbound left-turns during Saturday midday period (similar to what already occurs during the weekday PM peak period) and retime the signal. It should be noted that the restriping of the southbound approach would require the elimination of on-street parking along the west side of Stanyan Street to the south of the intersection. In addition, it is anticipated that left-turn prohibition would be in effect seven days of the week, between 7:00 AM and 7:00 PM. With this measure, the intersection operations would improve to LOS D during the weekday PM peak hour and Saturday midday peak hour.
- **King/Middle Drive East (weekday PM, Saturday midday):** Restripe the northbound approach to provide a right-turn pocket (convert the existing through-right lane into a through-only lane) and restripe the southbound approach to provide a left-turn pocket (convert the existing through-left lane into a through-only lane). It should be noted that the provision of these turn pockets would require the elimination of on-street parking along both northbound and southbound King Drive. With this measure, operations at the worst approach at the intersection would improve to LOS C.

The adverse LOS at King Drive/Crossover Drive could not be avoided; Alternative D would contribute to a significant impact at this location.

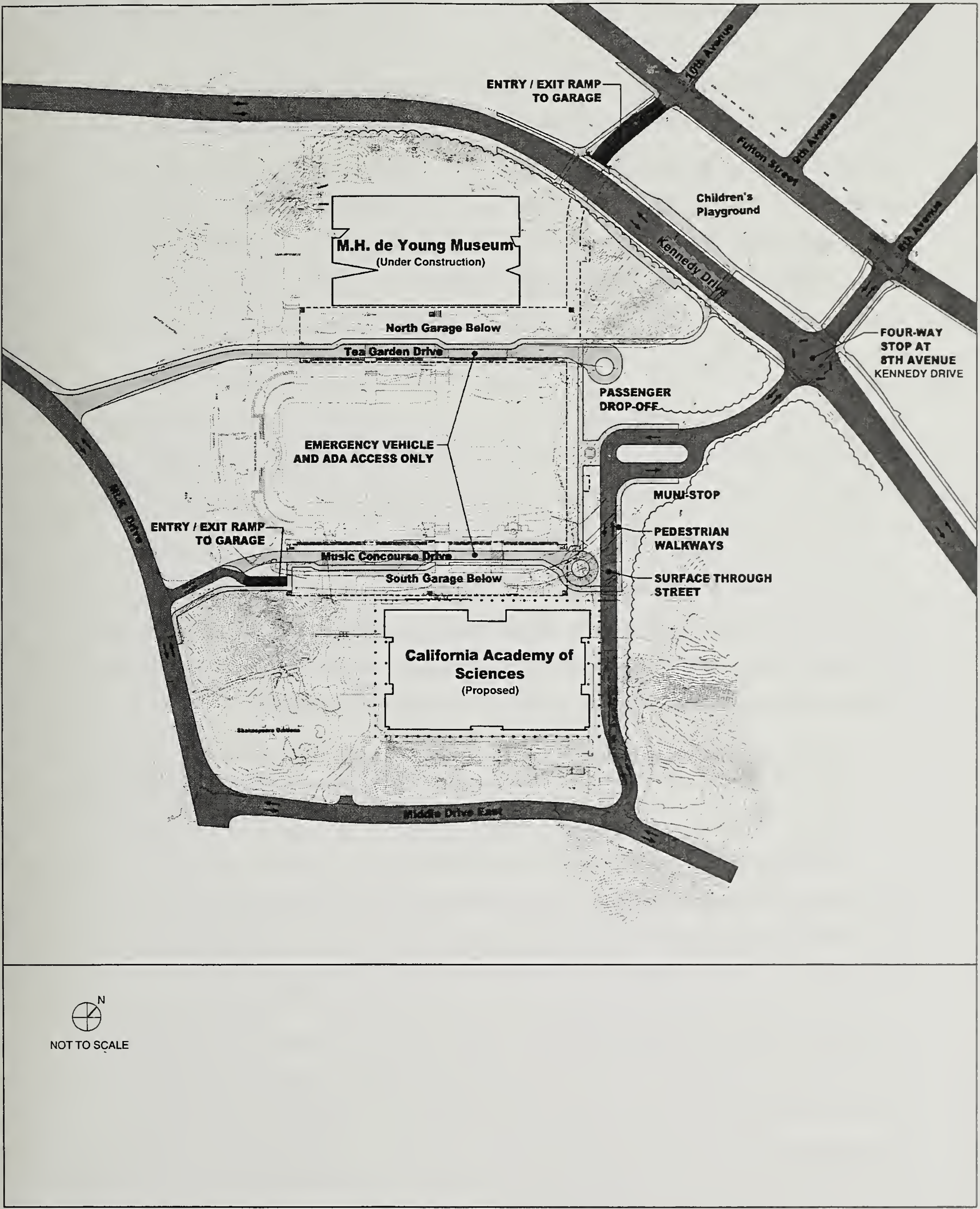
Alternative D would also provide access to the Park from the north through the Underground Through Street during the Sunday road closure, which is currently not possible. This alternative would not be considered to contribute to a significant unavoidable cumulative traffic impact.

As with the project, this alternative would not create local CO emissions in excess of federal or state standards; the alternative would not generate emissions of reactive organic compounds and nitrogen oxides that would adversely contribute to cumulative air quality effects.

Project construction activities associated with this alternative would temporarily increase noise levels in the area, but would be reduced with mitigation measures identified in Chapter IV, and operational and cumulative impacts would not result in adverse impacts.

E. ALTERNATIVE E: SURFACE THROUGH STREET

This alternative would include the Underground Parking Facility and new surface access from Eighth Avenue to the Concourse area (see Figure 27). The new surface through street to Middle Drive East would include a roundabout at the site of existing surface roadways. The roundabout, at the east end of the Concourse would include MUNI, bus, and other vehicle passenger loading and unloading. The through street would connect the Concourse and Middle Drive East adjacent to the California Academy of Sciences. In addition, the connection between Kennedy Drive and Academy Drive/Tea Garden Drive would be eliminated, and Academy Drive and Tea Garden Drives would be converted into cul-de-sacs. Alternative E assumes a four-way stop at Kennedy Drive and Eighth Avenue and would not require narrowing or re-alignment of Kennedy Drive. Access to Tea Garden Drive and Academy Drive would be from King Drive. Academy and Tea Garden Drives would be two-way and would be dead end streets providing emergency and ADA access only to the institutions.



SOURCE: Gordon H. Chong & Partners

FIGURE 27: ALTERNATIVE E - SURFACE THROUGH STREET

IMPACTS

Impacts on historical resources would be similar to Phase II of proposed project with the introduction of a new circulation feature and pattern in the Music Concourse vicinity. The introduction of a new surface road and traffic circle would alter spatial relationships and circulation patterns important to defining the character of the Music Concourse and may threaten its potential eligibility for the California Register of Historic Resources. This would be considered a significant adverse impact.

Visual impacts would also be similar to the proposed project with the exception of the Eighth Avenue and Middle Drive East entry ramps, which would be eliminated along with associated visual impacts. Overall changes resulting from this alternative would not adversely affect the overall visual quality of the Music Concourse or the Park.

Alternative E would have significant impacts to the intersection operating conditions at the intersection of Kennedy/Eighth Avenue during the weekday PM peak hour, and would not have significant impacts during the Saturday midday and Sunday midday peak hours. The following mitigation measure has been developed to address these impacts:

- **Kennedy/Eighth/Concourse Bypass Roadway (weekday PM):** Signalize intersection (note that this would be the same measure needed to mitigate the Baseline plus Project Phase 2 impacts). With this measure, the intersection operations would improve to LOS C. It should be noted that this intersection would also operate at LOS B during the Saturday midday peak hour with signalization.

With this alternative, the intersection of Kennedy Drive and Eighth Avenue would remain open to northbound and southbound vehicles during Sunday road closure conditions, however, there would be a need for traffic control officers and gates at this intersection.

As with the project, this alternative would not create local CO emissions in excess of federal or state standards. In addition, the alternative would not generate emissions of reactive organic compounds and nitrogen oxides that would adversely contribute to cumulative air quality effects.

Project construction activities associated with this alternative would temporarily increase noise levels in the area, but would be reduced with mitigation measures identified in Chapter IV, and would not result in adverse impacts. This Alternative would also result in an increase in noise levels on roadways surrounding the surface street as well as the California Academy of Science. However, no permanent development is proposed along the surface road and no additional sensitive noise receptors are located along the roadway. Therefore, operational noise impacts would be less than significant.

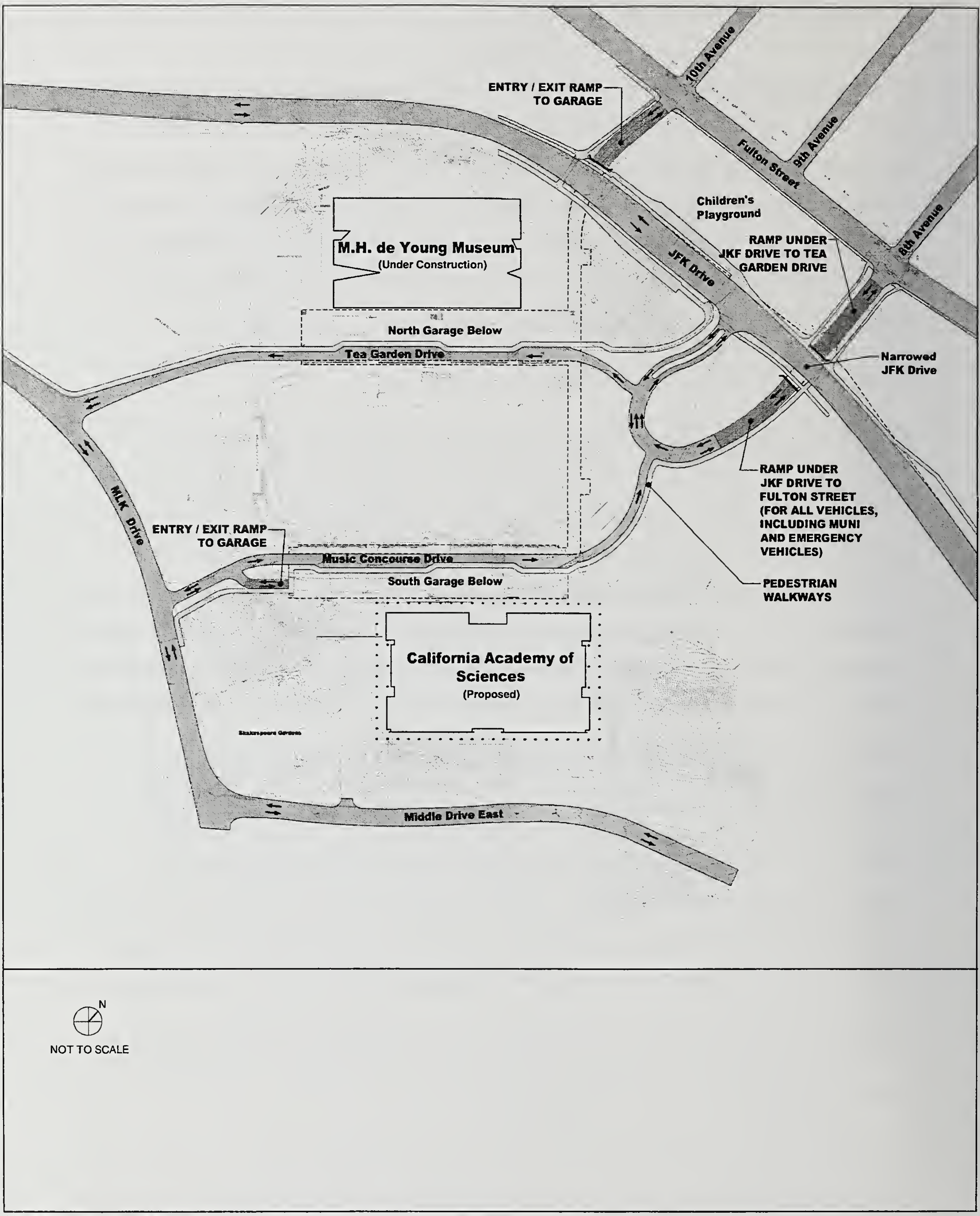
F. ALTERNATIVE F: TRAFFIC LOOP

Alternative F would include the Underground Parking Facility consistent with Phase I of the proposed project. Alternative F would also include a new vehicular tunnel, traffic loop, and entrance for the eastern end of the Music Concourse vicinity (see Figure 28). The proposed road would begin at the Eighth Avenue entry road where it would travel west descending under Kennedy Drive. The road would emerge from under Kennedy Drive within the northwest corner of the Rhododendron Dell and would travel west forming a traffic loop at the eastern end of the Music Concourse. Kennedy Drive would be narrowed and re-aligned to allow for the grade separation. This alternative would not include a through street to Middle Drive East.

IMPACTS

Impacts on historical resources would be the same as Phase II of the proposed project, including significant impacts on the historic character of the Rhododendron Dell. Impacts on visual resources would be similar to the proposed project with the exception of the Eighth Avenue ramp to the Underground Through Street proposed with Phase II with Alternative F, the ramp under Kennedy Drive begins at Fulton Street, altering the view entering the Park. However, in the context of the larger Park area, this change would not be likely to degrade overall visual quality or obstruct any scenic views.

As with the project, this alternative would not create local CO emissions in excess of the federal or state standards and would not generate emissions of reactive organic compounds and nitrogen oxides that would adversely contribute to cumulative air quality effects. Project



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SOURCE: Gordon H. Chong & Partners

FIGURE 28: ALTERNATIVE F - TRAFFIC LOOP

construction would temporary increase noise in the project vicinity, but impacts would be reduced by the mitigation measures included in Chapter IV. Other noise impacts associated with this alternative would be considered less than significant.

Alternative F conditions would not have any significant impacts to intersection operating conditions during the weekday PM, Saturday midday and Sunday midday peak hours. Eighth Avenue would remain open to vehicles during Sunday road closure conditions, and the need for traffic control officers and gates at the entrance to the Park would be eliminated. This alternative would not be considered to contribute to a significant unavoidable cumulative traffic impact.

G. OTHER ALTERNATIVES CONSIDERED

In 2001, the Golden Gate Park Concourse Authority engaged in a conceptual design study, including public outreach and review of a series of alternatives for potential Underground Parking Facility configurations, surface circulation changes, and underground through street routes to meet various project objectives and public input. This process resulted in the May 2001 Conceptual Design Study Evaluation of Alternatives – Golden Gate Park Concourse Underground Parking Garage.[1] The Authority board reviewed that study, as well as public comments. The following alternatives were described in that study, but were dropped from further consideration as presented below.

Underground Parking Facility (May 2001 Alternative 4) would add one level beneath the existing paved area north of the Concourse. This alternative was considered, but rejected primarily because it would add costs, interfere with circulation in the Concourse area, and cause construction and schedule delays to the adjacent New deYoung Museum.

Underground Parking Facility alternative (May 2001 Alternative 5) would locate the underground parking in sections adjacent to the museums and in the area west of the Bandshell. Each parking facility would include two levels of parking. This alternative was also rejected due to factors of costs, construction schedules and circulation. In addition, this alternative would require excavation and replacement of the area behind the Bandshell as well as removal and replacement of trees that provide wind break protection for the Music Concourse.

May 2001 Alternative 6 would have a two-level parking facility that would wrap around the deYoung Museum and extend under Kennedy Drive, to minimize impacts on the Concourse. This impact was considered, but rejected due to potential circulation problems, the need to relocate utilities, added construction costs as well as schedule and coordination conflicts with the New deYoung Museum, and the inconvenience of location for California Academy of Sciences visitors. In addition, this alternative would impact trees in the Japanese Tea Garden and along Kennedy Drive and require the reconstruction of the pedestrian tunnel under Kennedy Drive.

May 2001 Alternative 7 would locate the parking all on one level, on all four sides of the Music Concourse. This alternative was rejected because it would displace the pedestrian tunnels, cause cost and schedule challenges for construction, and could also cause circulation problems. In addition, this alternative would require excavation and replacement of the area west of the Bandshell as well as removal and replacement of trees that provide windbreak protection for the Music Concourse.

In February 2002, the Golden Gate Park Concourse Authority board approved proceeding with a Schematic Plan that included a separate underground parking area (Transit Center) for tour buses and school buses, which currently park behind the Spreckels Temple of Music and along Academy and Tea Garden Drives. The proposed bus parking area would be beneath the area to the east of the Concourse and would be accessible from either Tenth Avenue or Middle Drive East and would accommodate approximately 18 buses. The February 2002 Schematic Plan also included an Underground Through Street between Tenth Avenue and Middle Drive East. The Tenth Avenue ramp at Fulton Street and the Middle Drive East ramps would serve the Underground Parking Facility, the bus parking area, and the through traffic.

In August 2002, this Schematic Plan was revised to comprise the project description analyzed in this EIR. The bus parking area was dropped from further consideration because of the limited number of buses that could be accommodated, and circulation constraints among buses, access to the vehicle parking, and through traffic in the Underground Through Street. The

February 2002 plan was also re-considered to separate parking access at Tenth Avenue and Fulton Street from potential Phase II Underground Through Street traffic, now proposed to be from Kennedy Drive at Eighth Avenue.

NOTES – Alternatives

[1] Conceptual Design Study Evaluation of Alternatives – Golden Gate Park Concourse Underground Parking Garage, May 25, 2001, prepared for the Golden Gate Park Concourse Authority by Gordon H. Chong and Partners.

VII. DRAFT EIR DISTRIBUTION LIST

Copies of this Draft EIR and Draft EIR hearing were mailed or delivered to the following public agencies, organizations, and individuals. In addition, Notices of Availability of the Draft EIR were mailed to about 100 parties.

FEDERAL AND STATE AGENCIES

Leigh Jordan, Coordinator
Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, CA 94928

State Office of Intergovernmental
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State Clearinghouse
1400 Tenth Street, Room 121
P.O. Box 3044
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California Department of Fish and Game
Central Coast Region
Habitat Conservation
Post Office Box 47
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Nandini N. Shridhar
California Department of Transportation
Office of Transportation Planning
P.O. Box 23660
Oakland, CA 94623-0660

Dr. Knox Mellon, SHPO
Office of Historic Preservation
California Department of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

REGIONAL AGENCIES

Suzan Ryder
Association of Bay Area Governments
P.O. Box 2050
Oakland, CA 94604-2050

Judy Huang
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay St., Suite 1400
Oakland, CA 94612

Craig Goldblatt
Metropolitan Transportation Commission
101 8th Street
Oakland, CA 94607

Mr. Alan Zahradnik
Director of Planning and Policy Analysis
Golden Gate Bridge
Highway and Transportation District
1011 Andersen Drive
San Rafael, CA 94901

Jean Pedersen
Association of Bay Area Governments
101 8th Street
Oakland, CA 94607

Joseph Steinberger
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dennis Baker, Chief of Operations
City of Daly City
Wastewater Treatment Plant
153 Lake Merced Blvd.
Daly City, CA 94015

CITY AND COUNTY OF SAN FRANCISCO

San Francisco City Planning Commission
1660 Mission Street
San Francisco, CA 94103
Linda Avery, Commission Secretary
Shelly Bradford Bell, President
Michael J. Antonini
Rev. Edgar E. Boyd
Lisa Feldstein
Kevin Hughes
Sue Lee
William L. Lee

Golden Gate Park Concourse Authority
McLaren Lodge
501 Stanyan Street
San Francisco, CA 94117
Nancy Rowe Conner, Chair
Ron Miguel
Douglas Moran
John Lum
Stephanie Chase MacColl
Margaret O'Sullivan
John Rizzo

Elizabeth Goldstein, General Manager
San Francisco Recreation & Park Department
McLaren Lodge
501 Stanyan Street
San Francisco, CA 94117

Frank Chiu, Superintendent
Department of Building Inspection
1660 Mission Street
San Francisco, CA 94103

Maria Ayerdi
Mayor's Office of Economic Development
City Hall, Room 448
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

Capt. Timothy Hettrich
Police Department
Planning Division Hall of Justice
850 Bryant Street, Room 500
San Francisco, CA 94103

San Francisco Recreation and Park Commisison
McLaren Lodge
501 Stanyan Street
San Francisco, CA 94117
Margaret McArthur, Secretary
John Murray, President
William Getty, Vice President
Gloria Bonilla
Gordon Chin
Jim Lazarus
Lawrence Martin
Rebecca Prozan

Landmarks Preservation Advisory Board
1660 Mission Street
San Francisco, CA 94103
Andrea Green, Secretary
Tim Kelley, President
Elizabeth Skrondal, Vice-President
Ina Dearman
Jeremy Kotas
Theresa Picon
Paul Finwall
Nancy Ho-Belli
Suheil Shatara

Anthony Delucchi, Director of Property
San Francisco Real Estate Department
25 Van Ness Avenue, 4th Floor
San Francisco, CA 94102

Peter Straus
Service Planning Department
San Francisco MUNI
949 Presidio Avenue, Room 204
San Francisco, CA 94115

Bond M. Yee
San Francisco Department of Parking & Traffic
Traffic Engineering Division
25 Van Ness Avenue
San Francisco, CA 94102

Barbara Moy
San Francisco Department of Public Works
Bureau of Street Use and Mapping
875 Stevenson Street, Room 465
San Francisco, CA 94103

Pat Martel, General Manager
Public Utilities Commission
1155 Market Street
San Francisco, CA 94102

John Deakin, Director
Bureau of Energy Conservation
Hetch Hetchy Water & Power
1155 Market Street, 4th Floor
San Francisco, CA 94103

Marcia Rosen, Director
Mayor's Office of Housing
25 Van Ness Ave. # 600
San Francisco, CA 94102

Lorrie Kalos, Asst. Deputy Chief
San Francisco Fire Department
Division of Planning & Research
698 Second Street
San Francisco, CA 94107

Pamela David, Director
Mayor's Office of Community Development
25 Van Ness Ave., Suite 700
San Francisco, CA 94102

Richard Skaff
Mayor's Office on Disability
401 Van Ness Ave. Rm. 300
San Francisco, CA 94102

GROUPS AND INDIVIDUALS

Alice Suet Barkley, Esq.
30 Blackstone Court
San Francisco, CA 94123

Barbara Maloney
BMS Design Group
414 Jackson Street, Suite 404
San Francisco, CA 94111

Bayard Fong
Human Rights Commission
501 Stanyan Street
San Francisco, CA 94117

Douglas Nelson
RHAA
225 Miller Avenue
Mill Valley, CA 94941

Bob Rhine
Capital Planning Department
UCSF
145 Irving Street
San Francisco, CA 94122

Bruce Judd
Architectural Resources Group
Pier 9, The Embarcadero
San Francisco, CA 94111

Alvin Leung
Worldwide
111 Center Avenue, Suite F
Pacheco, CA 94553

Barbara W. Sahm
Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA 94107

Bob Jacobvitz
AIA
San Francisco Chapter
130 Sutter Street
San Francisco, CA 94104

Bob McFarland
Parsons Brinckerhoff Quade & Douglas, Inc.
303 Second Street #700 North
San Francisco, CA 94107

Bobby Thompson
St. Mary's Hospital
450 Stanyan Street
San Francisco, CA 94117

Carolyn Macmillan
Fine Arts Museums
233 Post Street
San Francisco, CA 94108

Cheryl L. Switzer
Inner Sunset Neighborhood Assn. (ISNA)
1309 - 12th Ave.
San Francisco, CA 94122

Dale Hess
San Francisco Convention & Visitors Bureau
201 - 3rd Street, Suite 900
San Francisco, CA 94103

David Chan
Transportation Authority
100 Van Ness, 25th Floor
San Francisco, CA 94102

David Humphreys
Worldwide
8421 Auburn Blvd., Suite #130
Citrus Heights, CA 95601

Dean Macris
1907 Leavenworth Street
San Francisco, CA 94133

Dee Dee Workman, Executive Director
San Francisco Beautiful
41 Sutter St., # 709
San Francisco, CA 94104

Don Young
57 Inverness Drive
San Rafael, CA 94901

Elaine Grimm
Sunset Coalition
1924 Great Highway
San Francisco, CA 94116

Ethan Burrows
Davis Langdon Adamson
170 Columbus Avenue
San Francisco, CA 94133

G. Bland Platt
362 Ewing Terrace
San Francisco, CA 94118

George Lim
G.M. Lim & Associates
1038 Post Street, Suite B
San Francisco, CA 94109

Chris Duderstadt
1327 10th Avenue
San Francisco, CA 94122

Coalition for San Francisco Neigborhoods
P.O. Box 42-5882
San Francisco, CA 94142 – 5882

Dave Snyder, Executive Director
San Francisco Bicycle Coalition
1095 Market Street, Suite 215
San Francisco, CA 94103

David G. Miles, Jr.
Outdoor Skaters Association
358 2nd Avenue #2
San Francisco, CA 94118

David Saxen
BMS Design Group
414 Jackson Street, Suite 404
San Francisco, CA 94111
Debbie Frieden
Fine Arts Museums
233 Post Street, 4th Floor
San Francisco, CA 94108

Richard J. Young
Music Concourse Community Partnership
One Maritime Plaza, #2525
San Francisco, CA 94111

Ed Michael
1001 Franklin Street, #20E
San Francisco, CA 94109-6840

Environmental Science Associates, Inc.
225 Bush St., Suite 1700
San Francisco, CA 94104-4207

Frank Noto
Golden Gate Heights Neighborhood Assn.
P.O. Box 27608
San Francisco, CA 94127

Harold Silk
Mid-Sunset Neighborhood Assoc.
1282 26th Avenue
San Francisco, CA 94122

Greg Gaar
HANC/Alliance for GGP
21 Beulah
San Francisco, CA 94117

Harry S. Parker
Fine Arts Museums
233 Post Street, 4th Floor
San Francisco, CA 94108

J. Patrick Kociolek
California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

James Beck
Haight Ashbury Neighborhood Council
P.O. Box 170518
San Francisco, CA 94117

Jane Morrison
San Francisco Tomorrow
41 Sutter St., #1579
San Francisco, CA 94104

Jim Killoran
Asian Art Museum
1390 Market Street, Suite 906
San Francisco, CA 94103

John Bardis
Inner Sunset Action Committee
1501 Lincoln Way, #503
San Francisco, CA 94122

Jon Gledhill
UCSF Parking & Transportation
1855 Folsom St. Rm. MCB500
San Francisco, CA 94143

Karen Crommie
Cole Valley Association
628 Ashbury St.
San Francisco, CA 94117

Michael Smiley
BMS Design Group
414 Jackson Street, Suite 404
San Francisco, CA 94111

Lee Clark
UCSF Parking & Transportation
1855 Folsom St. Rm. MCB500
San Francisco, CA 94143

Howard Strassner
San Francisco Group Transportation Sierra Club
85 Second St., Second Floor
San Francisco, CA 94105

James Argo
Lincoln Park Neighborhood Assn.
270 - 32nd Ave.
San Francisco, CA 94121

James Chappell, Executive Director
SPUR
312 Sutter Street, Suite 500
San Francisco, CA 94108

James Reuben
Reuben and Alter
235 Pine Street, 16th Floor
San Francisco, CA 94104

Janis MacKenzie
MacKenzie Communications, Inc.
601 California Street, Suite 1501
San Francisco, CA 94108

Joe Fusco
333 Chattanoga
San Francisco, CA 94114

John Barry
Sunset Heights Association
1627 10th Avenue
San Francisco, CA 94122

Kay A. Wilson
Public Affairs Management
135 Main Street Suite 1600
San Francisco, CA 94105

Margaret Brady
Save Our Richmond Environment
535 39th Ave
San Francisco, CA 94121

Mark Duffet, President
Sunset Parkside Education and Action Committee
2690 - 46th Ave.
San Francisco, CA 94106

Martin Gordon
Davis Langdon Adamson
170 Columbus Avenue
San Francisco, CA 94133

Mary Anne Miller
SPEAK
1239 42nd Avenue
San Francisco, CA 94122

Matt Gonzalez
S.F. Board of Supervisors
1 Dr. Carlton B. Goodlett Pl. #244
San Francisco, CA 94102
Michael Smith
Walk San Francisco
7 Hallam, #1A
San Francisco, CA 94103

Michelle Stratton
PAR
540 Tenth Avenue
San Francisco, CA 94118

Nancy Whelan
Nancy Whelan Consulting
5 Edgemar Way
Corte Madera, CA 94925

Philip Carleton
Alliance for GGP
1300 26th Ave. #503
San Francisco, CA 94122

Rebecca Kohlstrand
EnviroTrans Solutions
426--17th Street, Suite 100B
Oakland, CA 94612

San Francisco Chamber of Commerce
235 Montgomery Street, 12th Floor
San Francisco, CA 94104-2902

Steven L. Vettel
Morrison & Foerster, LLP
Attorneys at Law
425 Market Street
San Francisco, CA 94105-2482

Susan Maerki
Inner Sunset Park Neighbors
1500 - 6th Avenue
San Francisco, CA 94122

Ted Loewenberg
Waller Street Association
1580 Waller Street
San Francisco, CA 94117

Mary Hughes
Staton Hughes
530 Howard Street, Suite 250
San Francisco, CA 94105

Neighborhood Parks Council
783 Buena Vista West
San Francisco, CA 94117

Peg Divine
Parsons Brinckerhoff Quade & Douglas, Inc.
303 Second Street #700 North
San Francisco, CA 94107

Pinky Kushner
Alliance for Golden Gate Park
P. O. Box 170051
San Francisco, CA 94117-0051

Pat Kilduff
California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

Robert Harrison
2370 Vista del Mar Lane
Tiburon, CA 94920

Rolfe Mueller
Inner Sunset Merchants Assn.
917 Irving Street, #4
San Francisco, CA 94122

Mr. & Mrs. Rose & Lee Fong
727 10th Avenue
San Francisco, CA 94118

Stanley Smith
San Francisco Building & Construction
Trades Council
2660 Newhall Street, #116
San Francisco, CA 94124-2527

Sue Hestor
Attorney at Law
870 Market Street, Room 1128
San Francisco, CA 94102

Susan Suval
Sunset District Coalition
1672 Great Highway
San Francisco, CA 94122

William Shepard
Lake Street Residents Association
51-21st Avenue
San Francisco, CA 94121

Tay C. Via
Coblentz Patch Duffy & Bass
222 Kearny Street Suite 700
San Francisco, CA 94108

Georgia Brittan
San Franciscans for Reasonable Growth
460 Duncan Street
San Francisco, CA 94131

Jay Cahill
Cahill Contractors, Inc.
425 California Street, Suite 2300
San Francisco, CA 94104

Chinatown Resource Center
1525 Grant Avenue
San Francisco, CA 94133

John Vaughan
Cushman & Wakefield of California, Inc.
1 Maritime Plaza, Suite 900
San Francisco, CA 94111

Environmental Science Associates, Inc.
225 Bush St., Suite 1700
San Francisco, CA 94104-4207

Executive Director
San Francisco Architectural Heritage
2007 Franklin Street
San Francisco, CA 94109

Richard A. Judd
Goldfarb & Lipman
1300 Clay Street, 9th Floor
City Center Plaza
Oakland, CA 94612-1455

Gruen, Gruen & Associates
564 Howard Street
San Francisco, CA 94105

Larry Mansbach
Mansbach Associates
582 Market Street, Suite 217
San Francisco, CA 94104

Chi-Hsin Shao
CHS Consulting Group
500 Sutter Street, Suite 216
San Francisco, CA 94102

Susan R. Diamond
Brobeck, Phleger, Harrison
One Market Plaza
San Francisco, CA 94105

Carol Lester
Chicago Title
388 Market Street, 13th Floor
San Francisco, CA 94111

David Cincotta
1388 Sutter Street, Suite 915
San Francisco, CA 94102

Carolyn Dee
Downtown Association
5 Third Street, Suite 520
San Francisco, CA 94103

Doug Stevens, State Coordinator
Food and Fuel Retailers For Economic Equality
770 L Street, Suite 960
Sacramento, CA 95814

Gensler and Associates
600 California Street
San Francisco, CA 94103

Gerry Katz
Greenwood Press, Inc.
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Westport, Conn 06881-5007

The Jefferson Company
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San Francisco, CA 94111-1165

Sally Maxwell
Maxwell & Associates
1522 Grand View Drive
Berkeley, CA 94705

Jacob Herber
Morrison & Foerster
345 California Street
San Francisco, CA 94104

Cliff Miller
970 Chestnut Street, #3
San Francisco, CA 94109

Regina Sneed
National Lawyers Guild
558 Capp Street
San Francisco, CA 94110

Marie Zeller
Patri Merker Architects
400 Second Street, Suite 400
San Francisco, CA 94107

Peter Bass
Ramsay/Bass Interest
3756 Grant Avenue, Suite 301
Oakland, CA 94610

Thomas N. Foster
Rothschild & Associates
369 Pine Street, Suite 360
San Francisco, CA 94104-3302

Tony Kilroy
San Francisco Tomorrow
41 Sutter Street #1579
San Francisco, CA 94104

Sedway Group
505 Montgomery Street, #600
San Francisco, CA 94111-2552

John Kriken
Skidmore, Owings & Merrill, LLP
444 Market Street, Suite 2400
San Francisco, CA 94111

Robert S. Tandler
3490 California Street
San Francisco, CA 94118-1837

Jerry Tone
Montgomery Capital Corp.
244 California St.
San Francisco, CA 94111

Jon Twichell Associates
70 Hermosa Avenue
Oakland, CA 94618

Bob Berman
Nichols-Berman
142 Minna Street
San Francisco, CA 94105

Environmental and Land Use Section
Pillsbury, Winthrop LLP
50 Fremont Street
San Francisco, CA 94105

David P. Rhoades & Associates
364 Bush Street
San Francisco, CA 94104-2805

Walter Johnson
San Francisco Labor Council
1188 Franklin Street, #203
San Francisco, CA 94109

John Sanger, Esq.
1 Embarcadero Center, 12th Floor
San Francisco, CA 94111

Dave Kremer
Shartsis Freise & Ginsburg
One Maritime Plaza, 18th Floor
San Francisco, CA 94111

Jim Ross, Director of Public Affairs
and Political Campaigns
Solem & Associates
550 Kearny Street
San Francisco, CA 94108

Sustainable San Francisco
P.O. Box 460236
San Francisco, CA 94146

Joel Ventresca
1278 - 44th Avenue
San Francisco, CA 94122

Stephen Weicker
899 Pine Street, #1610
San Francisco, CA 94108

Eunice Willette
1323 Gilman Avenue
San Francisco, CA 94124

Calvin Welch
Council of Community Housing Organizations
409 Clayton Street
San Francisco, CA 94117

Bethea Wilson & Associates Art In Architecture
2028 Scott, Suite 204
San Francisco, CA 94115

Pete Holloran, President
Yerba Buena Chapter
California Native Plant Society
1033 Noe Street
San Francisco, CA 94114

Andrew Tuft
Singer Associates
140 Second Street, 2nd Floor
San Francisco, CA 94105
Mr. Charles Cannon
518 10th Avenue
San Francisco, CA 94118

Ms. Ronald Konopaski
566 9th Avenue
San Francisco, CA 94118

Mr. & Mrs. Stewart & Gretchen Stone
726 10th Avenue
San Francisco, CA 94118

Ms. Elizabeth Thompson
775 10th Avenue
San Francisco, CA 94118

Ms. Stephanie Wickum
722 10th Avenue
San Francisco, CA 94118

Ms. Susan Lew
723 10th Avenue
San Francisco, CA 94118

Ms. Sue Molinari
566 10th Avenue
San Francisco, CA 94118

Mr. Robert Bunker
739 10th Avenue
San Francisco, CA 94118

David C. Levy, Esq.
Morrison & Foerster, LLP
425 Market Street
San Francisco, CA 94105-2482

Paul Kollerer/Tom Balestri
Cahill Construction Services
955 Egbert Avenue
San Francisco, CA 94124-3733

Diane Wong
UCSF Campus Planning
3333 California Street, Suite 11
San Francisco, CA 94143-0286

Ms. Carol Wong
573 10th Avenue
San Francisco, CA 94118

Ms. Gail Enfiajian
590 Funston Avenue
San Francisco, CA 94118

Mr. Frank Lockary
775 10th Avenue
San Francisco, CA 94118

Mr. John Nichols
1431 --34th Avenue
San Francisco, CA 94122

Mr. Sandra Treacy
739 10th Avenue
San Francisco, CA 94118

Ms. Joan Maki
779 10th Avenue
San Francisco, CA 94118

Ms. Mona Malik
771 10th Avenue
San Francisco, CA 94118

Ms. Barbara Canellos
754 10th Avenue
San Francisco, CA 94118

Mr. Jay Hemphill
743 10th Avenue
San Francisco, CA 94118

Mr. Duncan Kennedy
731 10th Avenue
San Francisco, CA 94118

Mr. Henry Fong
734 10th Avenue
San Francisco, CA 94118

Ms. Deborah Roach
562 10th Avenue
San Francisco, CA 94118

Mr. & Mrs. Grace and Allan Lau
707 10th Avenue
San Francisco, CA 94118

Mr. Hoy Henderson
519 10th Avenue
San Francisco, CA 94118

Ms. Grace Folia
783 10th Avenue
San Francisco, CA 94118

Jan Vargo
Kaplan/McLaughlin/Diaz
222 Vallejo Street
San Francisco, CA 94111

Mr. Mack Roach
562 10th Avenue
San Francisco, CA 94118

Ms. Marilyn Friend
746 10th Avenue
San Francisco, CA 94118

Mr. William May
560 Funston
San Francisco, CA 94118

Mr. Tom Calhoun
567 10th Avenue
San Francisco, CA 94118

Ms. Sandra Gilford
578 10th Avenue
San Francisco, CA 94118

John Elberling
Yerba Buena Consortium
182 Howard Street, #519
San Francisco, CA 94105

MEDIA

The Sun Reporter
1791 Bancroft Avenue
San Francisco, CA 94124-2644

Bill Shiffman
Associated Press
1390 Market Street, Suite 318
San Francisco, CA 94102

Gabe Roth, City Editor
San Francisco Bay Guardian
520 Hampshire Street
San Francisco, CA 94110

Elliot Diringer
San Francisco Chronicle
925 Mission Street
San Francisco, CA 94103

Leland S. Meyerzone
KPOO FM
P.O. Box 6149
San Francisco, CA 94101

Tim Turner
San Francisco Business Times
275 Battery Street, Suite 940
San Francisco, CA 94111

San Francisco Examiner
988 Market Street
San Francisco, CA 94102

San Francisco Independent
City Desk
1201 Evans Avenue
San Francisco, CA 94124

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1630 Holloway Avenue
San Francisco, CA 94132

Stanford University Libraries
Jonsson Library of Government Documents
State & Local Documents Division
Stanford, CA 94305

Hastings College of the Law - Library
200 McAllister Street
San Francisco, CA 94102-4978

VIII. REPORT PREPARERS; ORGANIZATIONS AND INDIVIDUALS CONSULTED

LEAD AGENCY

City and County of San Francisco
1660 Mission Street, Suite 500
San Francisco, CA 94103-2414
Joy Navarrete, Associate Planner
Bill Wycko, Transportation Planner

PROJECT SPONSOR

Golden Gate Park Concourse Authority
McLaren Lodge
501 Stanyan Street
San Francisco, CA 94117-1898
Michael D. Ellzey, Chief Executive Officer

EIR CONSULTANTS

EIP Associates, Inc.
601 Montgomery Street, Suite 500
San Francisco, CA 94111
Michael Rice, Project Manager
Dorney Burgdorf, Deputy Project Manager
Gina Messa, Deputy Project Manager (former)
Katie Morange, Assistant Planner
Rachel Yelo, Assistant Planner
Jackie Ha
Grace Jeung

Wilbur Smith Associates
1145 Market Street, Tenth Floor
San Francisco, CA 94103
Tim Erney, Senior Transportation Planner
(Transportation and Circulation – EIR)

Page & Turnbull
724 Pine Street
San Francisco, CA 94108
Lex Campbell, Designer
Christopher VerPlanck, Architectural Historian
(Historic Architectural Resources – EIR)

Square One Productions
1736 Stockton Street, # 7
San Francisco, CA 94133
Hartmut Gerdes, Principal
Yon Resch, Senior Associate
Angela Lin, Associate
Rebekah Berry
(Visual Simulations)

Archeo-Tec Inc.
5283 Broadway
Oakland, CA 94618
Allen Pastron, Ph.D.
(Archaeology – Initial Study)

Sixth Street Studio
231 6th Street
San Francisco, CA 94103
Valerie Richert, Graphics Coordinator
(Graphics – Initial Study and EIR)

PROJECT ARCHITECTS

Gordon Chong & Partners
130 Sutter Street, Suite 300
San Francisco, CA 94104
Geoff Adams, Principal
Sam Nunes, Partner in Charge
Rochelle Nagata-Wu, Project Architect

APPENDIX A. INITIAL STUDY/EIR REQUIREMENT

NOTICE THAT AN
ENVIRONMENTAL IMPACT REPORT (EIR)
IS DETERMINED TO BE REQUIRED

Date of this Notice: May 18, 2002

Lead Agency: Planning Department, City and County of San Francisco
1660 Mission Street - 5th Floor, San Francisco, CA 94103-2414

Agency Contact Person: Joy Navarrete **Telephone:** (415) 558-5975

Project Title: 2001.911E - Golden Gate Park Concourse Authority Projects

Project Sponsor: Golden Gate Park Concourse Authority, City and County of San Francisco Recreation and Park Department

Project Contact Person: Mike Ellzey, CEO, (415) 831-2085

Project Address: Tea Garden Drive **Assessor's Block(s) and Lot(s):** 1700/001

City and County: San Francisco

Project Description: The site is between the California Academy of Sciences and the M.H. de Young Museum in Golden Gate Park, known as the Music Concourse area. In 1998, voters of San Francisco approved Proposition J, Golden Gate Park Revitalization Act, to improve the landscape and pedestrian environment of the Music Concourse area. The proposed project would include an underground parking facility of 800 to 1,000 spaces at the Music Concourse, surface improvements, and transportation improvements in the Concourse area and throughout Golden Gate Park, as described in Proposition J. Proposition J requires removal of surface parking spaces from the Music Concourse area, and in locations throughout the Park, equivalent to the number of spaces provided in the new underground parking facility, upon completion of the parking facility. In addition to the underground parking facility, the Transportation Implementation Plan includes the following elements: intra-park shuttle, cultural shuttle, traffic calming measures, parking management, bicycle and pedestrian improvements, road closures, and MUNI service improvements. The project site is within the P (Public Use) zoning district and within an OS (Open Space) Height and Bulk District, Assessor's Block 1700, Lot 1.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Section 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

Deadline for Filing of an Appeal to the Planning Commission of this Determination that an EIR is required: June 7, 2002 at 5:00 p.m.

An appeal requires: 1) a letter specifying the grounds for the appeal; and
2) a $209.00 filing fee.

Paul E. Maltzer
Environmental Review Officer
Planning Department

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS
DRAFT INITIAL STUDY
Case No. 2001.911E

I. PROJECT DESCRIPTION

In 1998, voters of San Francisco approved Proposition J, the Golden Gate Park Revitalization Act, to improve the landscape and pedestrian environment of the Music Concourse area and construct an underground parking facility with dedicated access routes from outside Golden Gate Park in or about the Concourse area. The proposed project would include an underground parking facility at the Music Concourse, surface improvements, and transportation improvements in the Concourse area and throughout Golden Gate Park, as described in Proposition J. Proposition J requires removal of surface parking spaces from the Concourse area, and in locations throughout the Park, equivalent to the number of spaces provided in the new underground parking facility upon completion of the parking facility.

Proposition J authorized and directed the creation of the Golden Gate Park Concourse Authority (GGPCA), a non-profit public benefit corporation, to "(1) create a pedestrian oasis in the Music Concourse area of Golden Gate Park, situated between the de Young Museum and the Academy of Science (the 'Concourse') and (2) take steps to reduce the impacts of automobiles in the Park while still providing long-term assurance of safe, reliable and convenient access for visitors to the Park, including its cultural institutions." Section 8 of Proposition J calls for the development and completion of a feasibility study and implementation plan to include: "an intra-Park shuttle system for all attractions within Golden Gate Park; access to the Park road system from the northern side of the Park; traffic 'calming' measures to mitigate 'highway'-type traffic patterns, including, without limitation, consideration of cul-de-sacs and other roadway improvements; time-limited parking throughout the Park on weekdays to discourage non-Park commuter use; a 'cultural shuttle' carrying visitors from major downtown and transit locations to and from the Park; bicycle and skating lanes and paths within the Park; road closures within the Park in accordance with the Golden Gate Park Master Plan (adopted pursuant to Section 10 of this ordinance [Proposition J]); expanded use of the nearby hospital garages via shuttle for overflow use; Municipal Railway (MUNI) service improvements; and traffic, roadway, landscaping, and other infrastructure improvements to facilitate transition to a Golden Gate Park where the automobile is increasingly less visible." The "Transportation Implementation Plan (TIP)" to be implemented in Golden Gate Park under Proposition J in conjunction with the construction of an 800- to 1,000-space parking facility, as described below, was completed in September 2001.

Thus, in addition to the underground parking facility, the TIP includes the following elements:

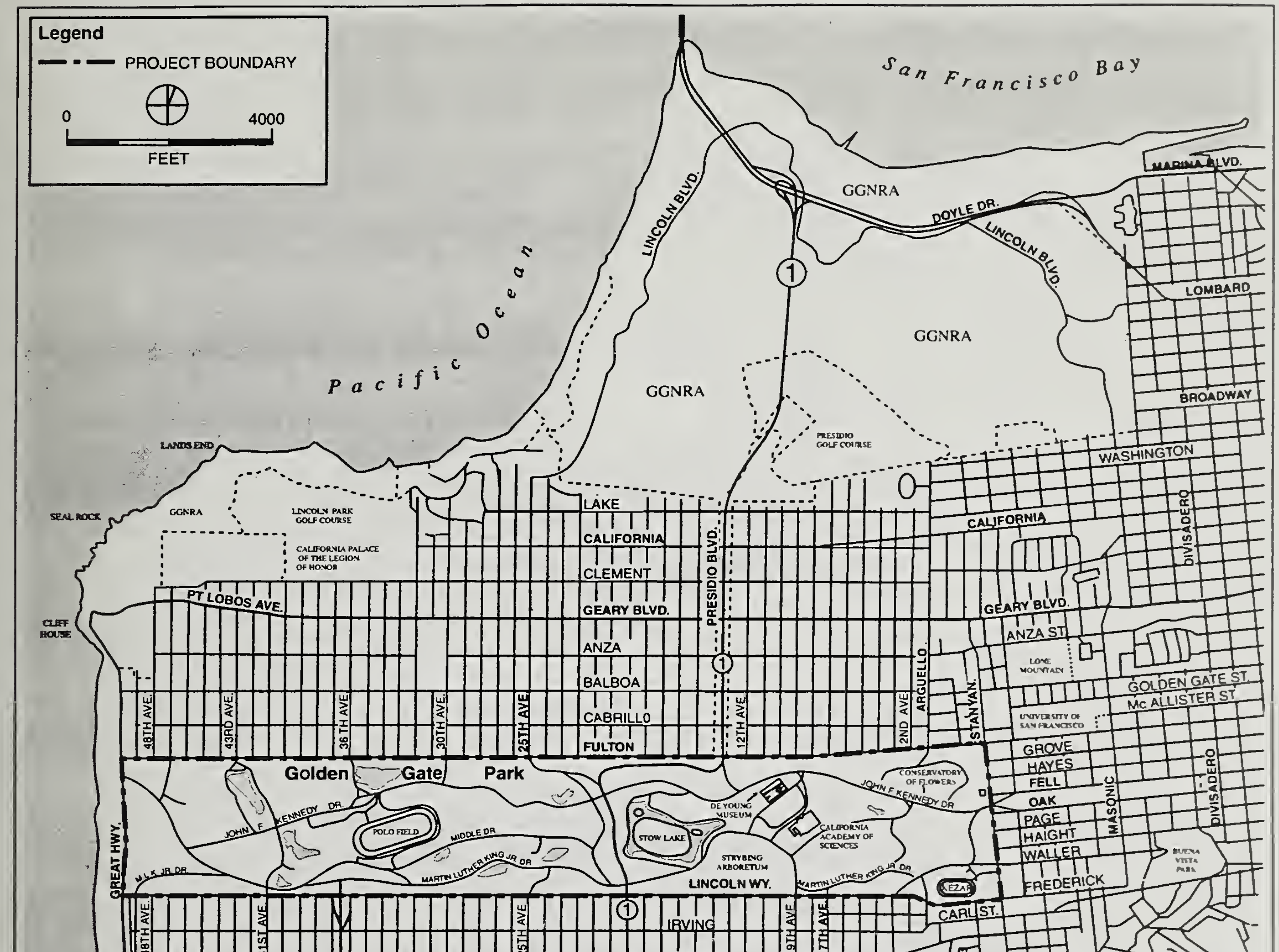
- Intra-Park Shuttle
- Cultural Shuttle
- Traffic Calming
- Parking Management
- Bicycle and Pedestrian Improvements
- Road Closures
- MUNI Service Improvements

As described below, some elements of the TIP were examined and approved under the Golden Gate Park Master Plan and the Golden Gate Park Master Plan EIR and those do not require further environmental review as part of the Golden Gate Park Concourse Authority Projects.

Music Concourse Underground Parking Facility

The underground parking facility would be constructed beneath existing surface paved parking and roadway areas in the Music Concourse area of Golden Gate Park, beneath Tea Garden Drive and Academy Drive (see Figures 1 and 2). The project site is within Lot 1 of Assessor's Block 1700, which includes all of the approximately 1,017-acre park. Roadways serving the Concourse area include Middle Drive East to the southeast, Martin Luther King, Jr. Drive to the southwest, and John F. Kennedy Drive to the north. Currently, the Concourse area includes approximately 200 surface parking spaces. The Music Concourse also includes open space characterized by regularly spaced trees, seating, and other landscape features in the Concourse "bowl" (approximately 10 feet below the grade of Tea Garden Drive and Academy Drive) in a formal, symmetrical plan. The M.H. de Young Memorial Museum (approved for re-construction) and the Hagiwara Japanese Tea Garden are immediately north and northwest of the Music Concourse, respectively. The Spreckels Temple of Music (Band Shell) is at the west end of the Music Concourse. The California Academy of Sciences is south of the Music Concourse. The Shakespeare Garden is southwest of the Academy of Sciences. Forest areas of cypress, pine and eucalyptus trees surround the Music Concourse east of the Music Concourse "bowl," northeast of the Japanese Tea Garden, north of the de Young Museum, and west and east of the Academy of Sciences. These wooded areas and other landscape elements, such as the Rhododendron Dell and plantings behind the de Young Museum, the Academy of Sciences and the Band Shell, seclude the Music Concourse and institutions from other areas of the Park. Three historic pedestrian tunnels, near the northeast, southeast and southwest corners of the Music Concourse bowl, extend under the surface roadways, Tea Garden and Academy Drives, and connect to paved pathways outside the Concourse area.

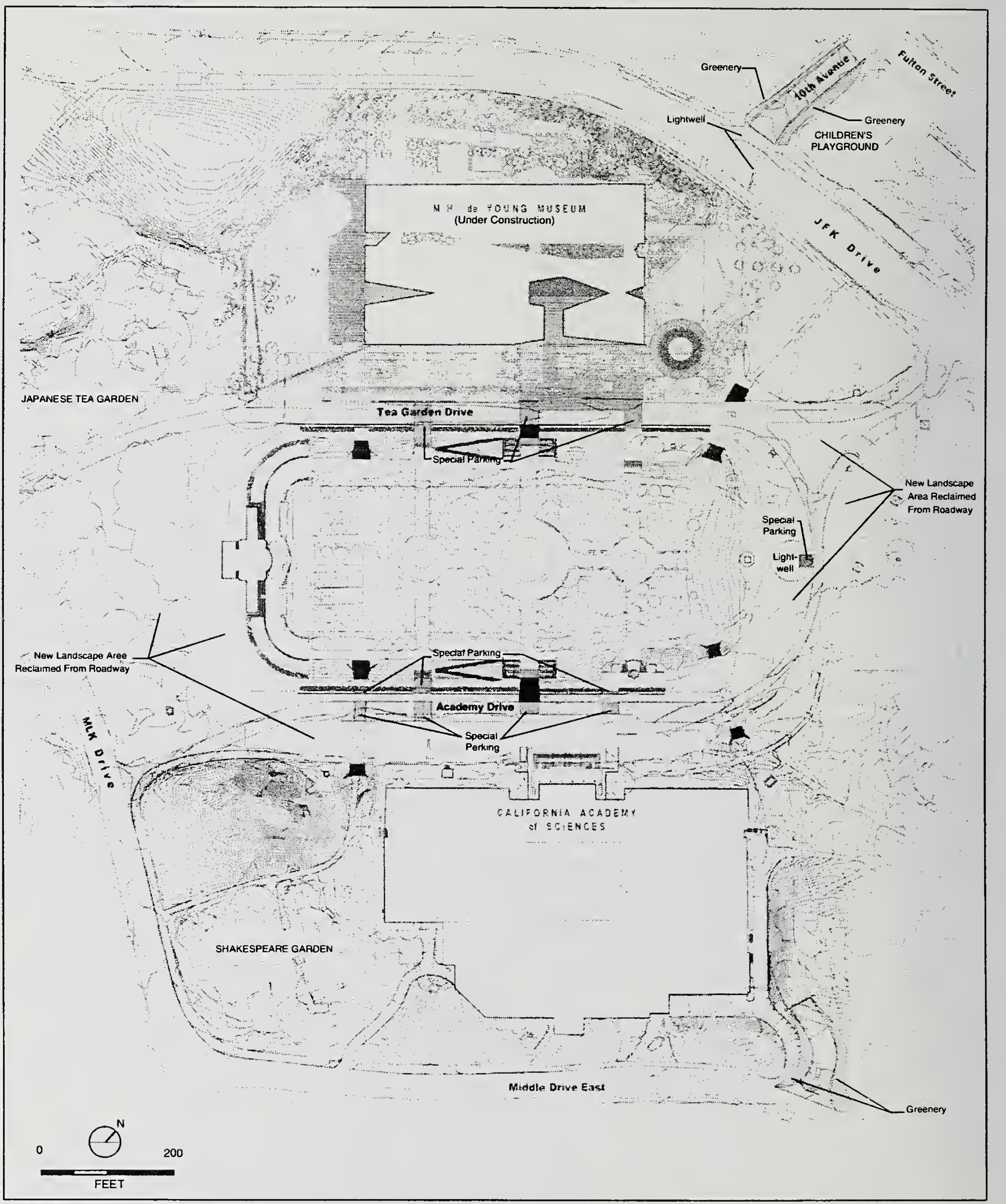
The underground parking facility, as proposed, would accommodate about 800 cars, configured in two, two-level structures; one beneath Tea Garden Drive between the de Young Museum and the Music Concourse and the second beneath Academy Drive between the California Academy of Sciences and the Music Concourse (see Figures 3 and 4). The two structures would be connected by an underground vehicle tunnel at the east end of the Music Concourse. A ramp at Tenth Avenue and Fulton Street, beginning outside the Park, would provide an entrance and exit for the parking facility. The proposed project would have a second entry/exit ramp at Middle Drive East near the California Academy of Sciences or, alternatively, an entry ramp on Academy Drive. The total footprint of the parking facility would be approximately 290,000 square feet (sq. ft.), including the transit center/bus parking area and the access tunnels. Each portion of the parking facility would be approximately 114 feet wide; the northern portion, near the de Young Museum, would be approximately 650 feet long and the southern portion, near the Academy of Sciences, would be approximately 710 feet long. The northern portion would accommodate approximately 380 spaces, including 15 ADA accessible spaces. Approximately 420 parking spaces, including 18 ADA accessible spaces, would be in the southern portion of the parking facility. A total of 46 bicycle parking spaces



SOURCE: EIP Associates

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 1: PROJECT LOCATION



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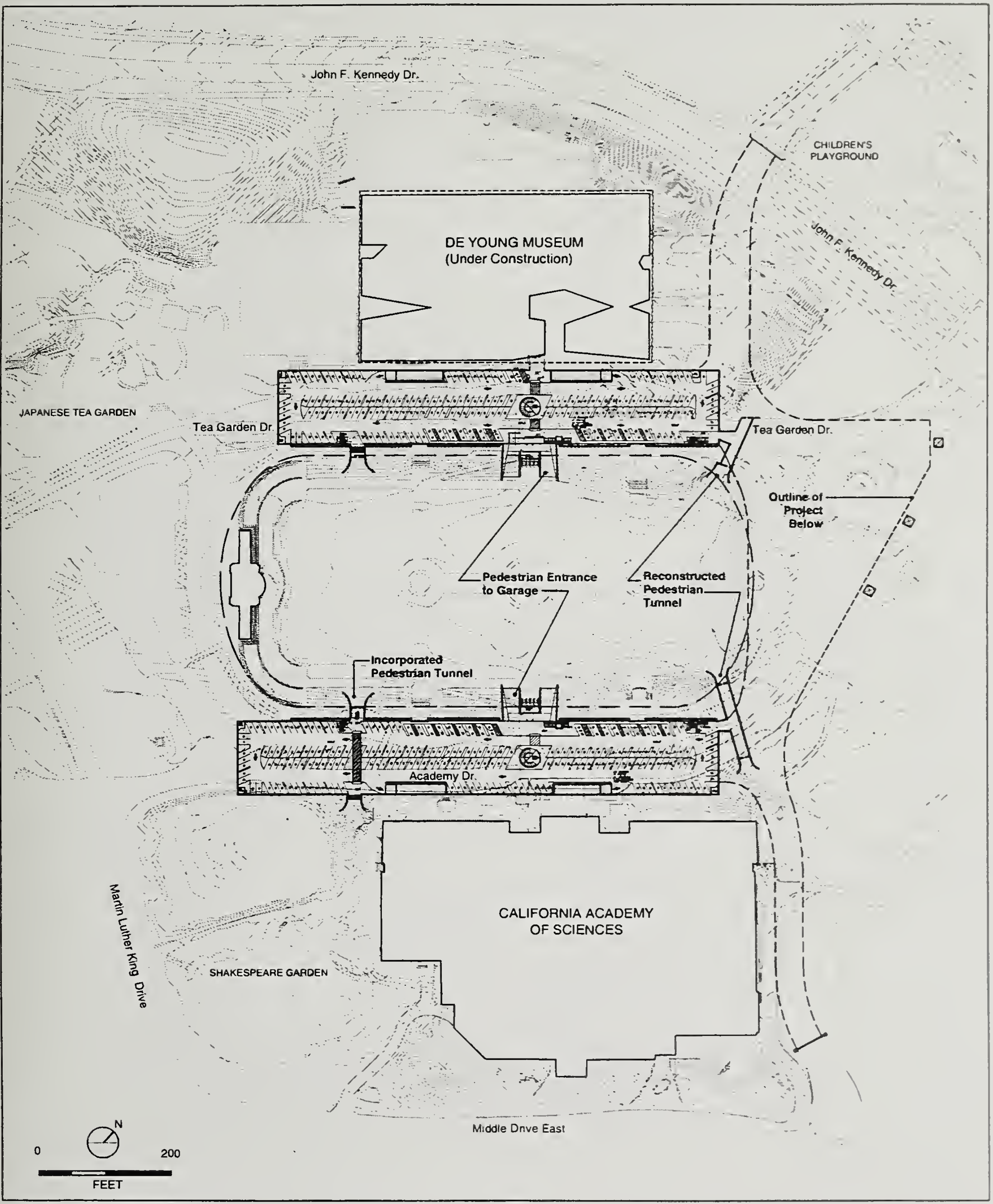
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 2: PROPOSED MUSIC CONCOURSE SITE PLAN



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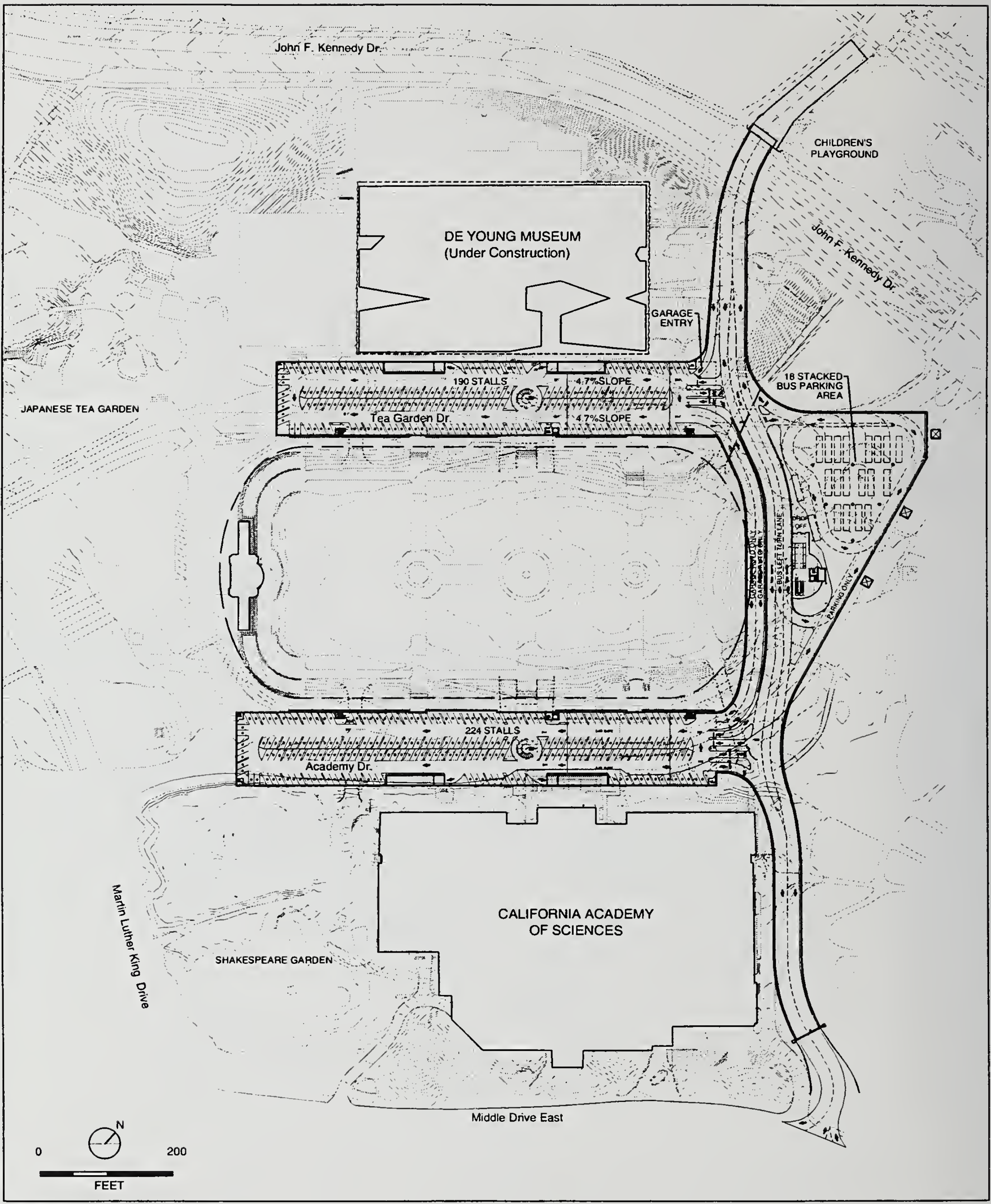
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 3: UPPER LEVEL PARKING PLAN



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SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 4: LOWER LEVEL PARKING PLAN

would be provided in the parking facility on the upper levels of each portion adjacent to pedestrian access points.

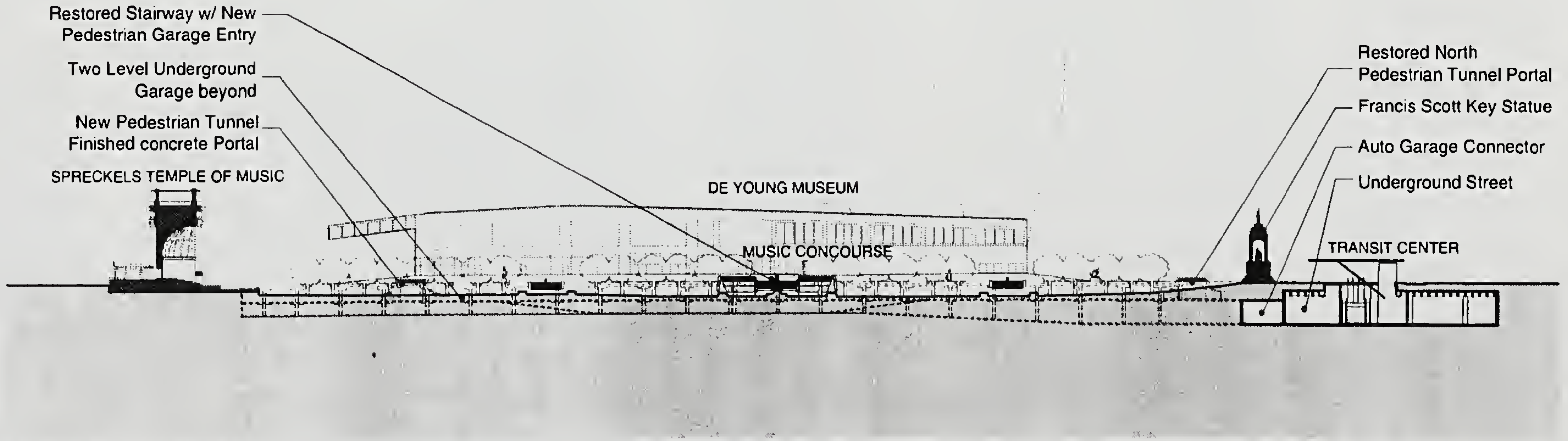
The project would include the reconstruction and restoration of the two easterly pedestrian tunnels and portals in their current location separate from the parking facility (see Figures 2 and 5). The tunnels would be updated to meet current structural codes. With parking facility access at the lower level, vehicle tunnels would pass beneath the pedestrian tunnels. The west pedestrian tunnel beneath Academy Drive would be reconstructed with restored portals, with pedestrian circulation through the upper level of the parking facility.

Pedestrian circulation for the parking facility would include walkways and ramps connecting the upper parking level with the lower Concourse level or "bowl" (see Figures 5 and 6); these walkways would enter the Concourse bowl from existing pedestrian tunnel locations as well as from new access to the Concourse bowl at the northwest corner of the Concourse, across from the southwest pedestrian tunnel, and adjacent to existing stairways at the north and south of the Concourse bowl near its midpoint. Circulation within the parking facility would include stairs and elevators connecting the lower and upper parking levels but not penetrating the upper Concourse level. New ADA accessible ramps and reconstructed stairs would connect the bowl to the upper Concourse level.

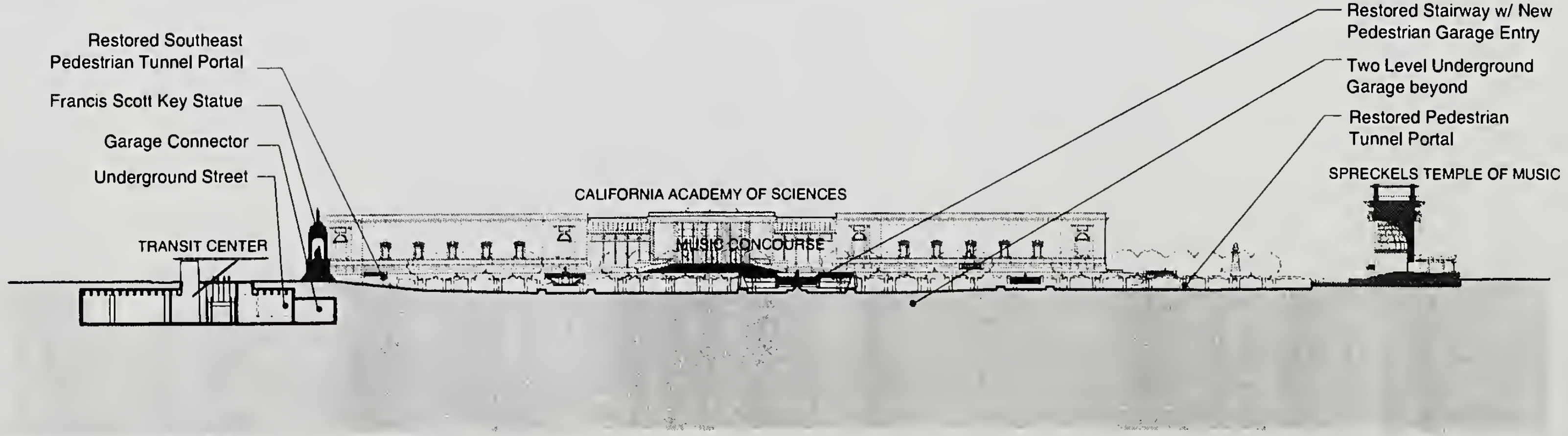
The parking facility would include a ventilation system to supply fresh air along one side of the garage with a continuous outlet slot along the opposite side. The vent slots would be at the edges of the structure along Tea Garden and Academy Drives. The ventilation slots would avoid a requirement to construct 10-foot vertical shafts in the Music Concourse surface area to ventilate the structure, and would also provide an opportunity to bring natural light into the garage interior.

With the intent to reduce traffic in the Concourse area, the project sponsor, at the request of the Sierra Club, has proposed an underground street connecting Fulton Street to Middle Drive East, which would allow for through traffic to be restricted or eliminated from Tea Garden Drive and Academy Drive. The proposed underground roadway would ramp down at Tenth Avenue at Fulton Street (as with the proposed project) under John F. Kennedy Drive and would extend beneath the east end of the Concourse and alongside the east side of the California Academy of Sciences, where it would ramp up to Middle Drive East. This underground street would also provide access into the parking structure from Tenth Avenue and from Middle Drive East and would therefore eliminate the need for the secondary auto entry ramp into the parking structure at the west end of Academy Drive. The underground street is currently an un-funded public enhancement to the project. If the underground street and connector to Middle Drive East were not constructed, a secondary auto entry to the parking facility would be from Martin Luther King, Jr. Drive via a ramp down at the west end of Academy Drive.

The proposed underground parking facility would provide a separate underground parking area for tour buses and school buses, which currently park behind the Spreckels Temple of Music and along Academy and Tea Garden Drives. The underground street described above would have a posted speed limit of 15 mph. The proposed bus parking area would be beneath the


Restored Stairway w/ New Pedestrian Garage Entry
Two Level Underground Garage beyond
New Pedestrian Tunnel Finished concrete Portal
SPRECKELS TEMPLE OF MUSIC
DE YOUNG MUSEUM
MUSIC CONCOURSE
Restored North Pedestrian Tunnel Portal
Francis Scott Key Statue
Auto Garage Connector
Underground Street
TRANSIT CENTER

A. SECTION LOOKING NORTH


Restored Southeast Pedestrian Tunnel Portal
Francis Scott Key Statue
Garage Connector
Underground Street
TRANSIT CENTER
CALIFORNIA ACADEMY OF SCIENCES
MUSIC CONCOURSE
Restored Stairway w/ New Pedestrian Garage Entry
Two Level Underground Garage beyond
Restored Pedestrian Tunnel Portal
SPRECKELS TEMPLE OF MUSIC

B. SECTION LOOKING SOUTH

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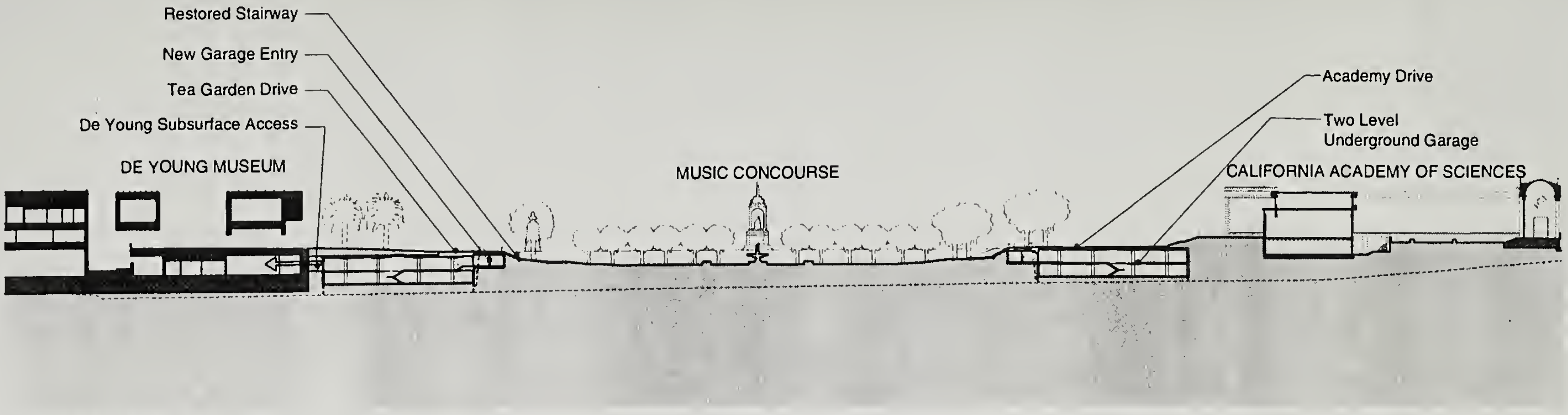
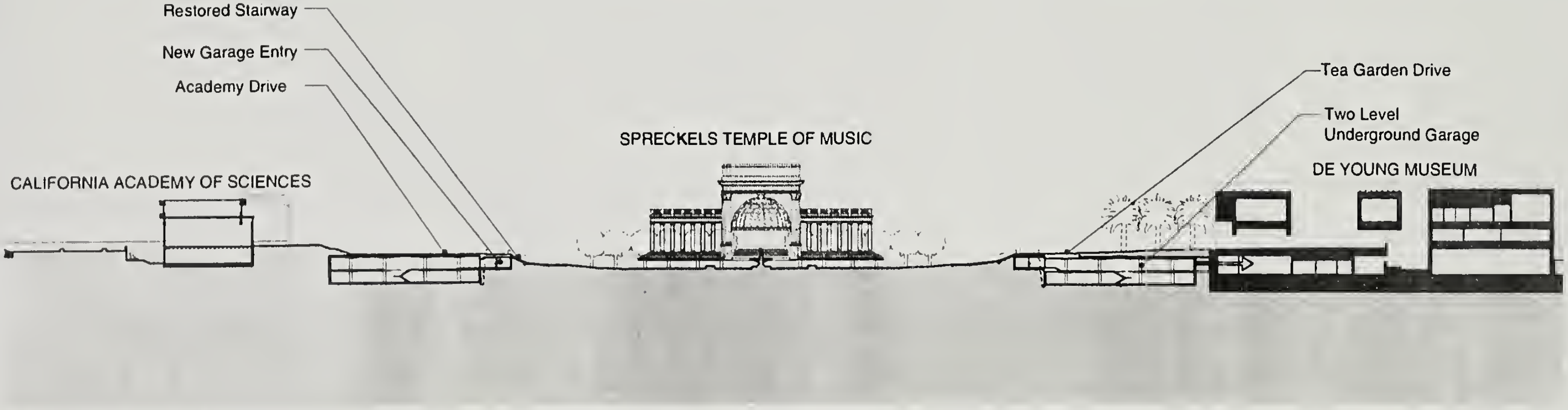
SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 5: SITE SECTIONS THROUGH CONCOURSE



A: SECTION LOOKING EAST



B. SECTION LOOKING WEST

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SOURCE Gordon H Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 6: SITE SECTIONS THROUGH CONCOURSE

area to the east of the Concourse and would be accessible from either Tenth Avenue or Middle Drive East and would accommodate approximately 18 buses (see Figures 7 and 8). The bus facility would include bus parking and a passenger drop-off and pickup facility with direct access to the Concourse surface. The underground bus facility is currently an un-funded public enhancement to the project. MUNI would continue to provide transit service to the surface of the Concourse (44-O'Shaughnessy).

Intra-Park Shuttle

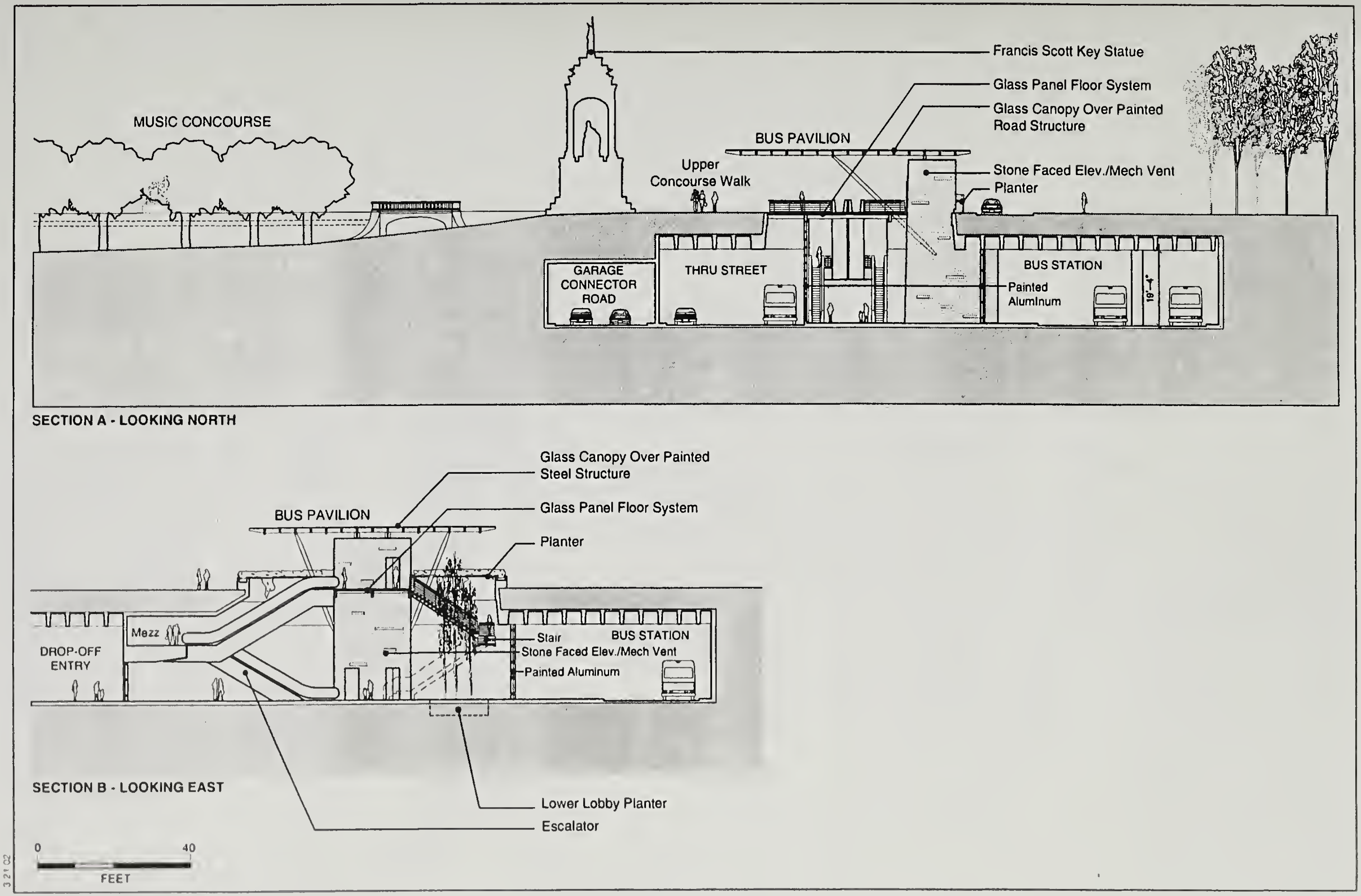
The Golden Gate Park Concourse Authority (GGPCA) introduced the Intra-Park Shuttle as a three-month pilot program to provide free transportation to visitors to Golden Gate Park on Saturdays, Sundays and holidays. Phase 1 of the pilot program ran from August 18 to October 28, 2001, to allow the GGPCA to evaluate the effectiveness of the program through rider surveys. Approximately 5,200 persons used the shuttle during Phase 1 of the pilot program. The information gathered from the surveys was integrated into a final recommendation presented to the City at the end of the 2001 pilot program, on November 7, 2001, with recommendations for the 2002 pilot program.

Phase 1 of the Intra-Park Shuttle service used small buses with the capacity to carry up to approximately 30 passengers in August and September of 2001 and used motorized cable car vehicles, which were easily distinguishable from tour buses. The shuttle was operated at 20-minute intervals on weekends and holidays from 10:00 a.m. to 6:00 p.m and was free of charge to passengers. The Intra-Park Shuttle served 21 stop locations including Sharon Meadow, the Conservatory of Flowers, the California Academy of Sciences, the Japanese Tea Garden, Stow Lake, the Rose Garden, the Beach Chalet , and the Strybing Arboretum. Phase 1 of the Intra-Park Shuttle route served MUNI connections on Lincoln Street, between Fourth and Fifth Avenues. Shuttle service also included connections to the UCSF Garage at Second Avenue and Irving Street (to connect with the N-Judah lines); at 19th Avenue and Lincoln Way (to connect with the 16X-Noriega, 28-19th Avenue, 29-Sunset, and 71-Haight/Noreiga); at 36th Avenue and Fulton Street (to connect with the 5-Fulton; at 48th Avenue and Lincoln Way (to connect with the N-Judah and the 18-46th Avenue); and at Ninth Avenue and Lincoln Way (to connect to the 16X-Noriega, 44-O'Shaughnessy, and the 71-Haight/Noriega).

The 2002 pilot program (Phase 2), which will operate from May to October, 2002, is intended to increase ridership and visibility and to identify further service improvements. Phase 2 will continue to serve the 21 stop locations (and MUNI connections) with ADA accessible mid-sized buses and will extend the route to Stanyan Street near Haight Street to connect with the 6-Parnassus, 33-Stanyan, 43-Masonic, and 71-Haight/Noriega MUNI bus lines in 2002. The Intra-Park Shuttle is part of the GGPCA Projects and was addressed but not fully analyzed in the Golden Gate Park Master Plan. As a pilot program, the Intra-Park Shuttle was found to be exempt from environmental review under the California Environmental Quality Act (CEQA).

Cultural Shuttle

Based on the determination of a feasibility study and the TIP, the proposed Cultural Shuttle route would operate two-way at 15-minute intervals on weekends and holidays providing



SOURCE. Gordon H. Chong & Partners

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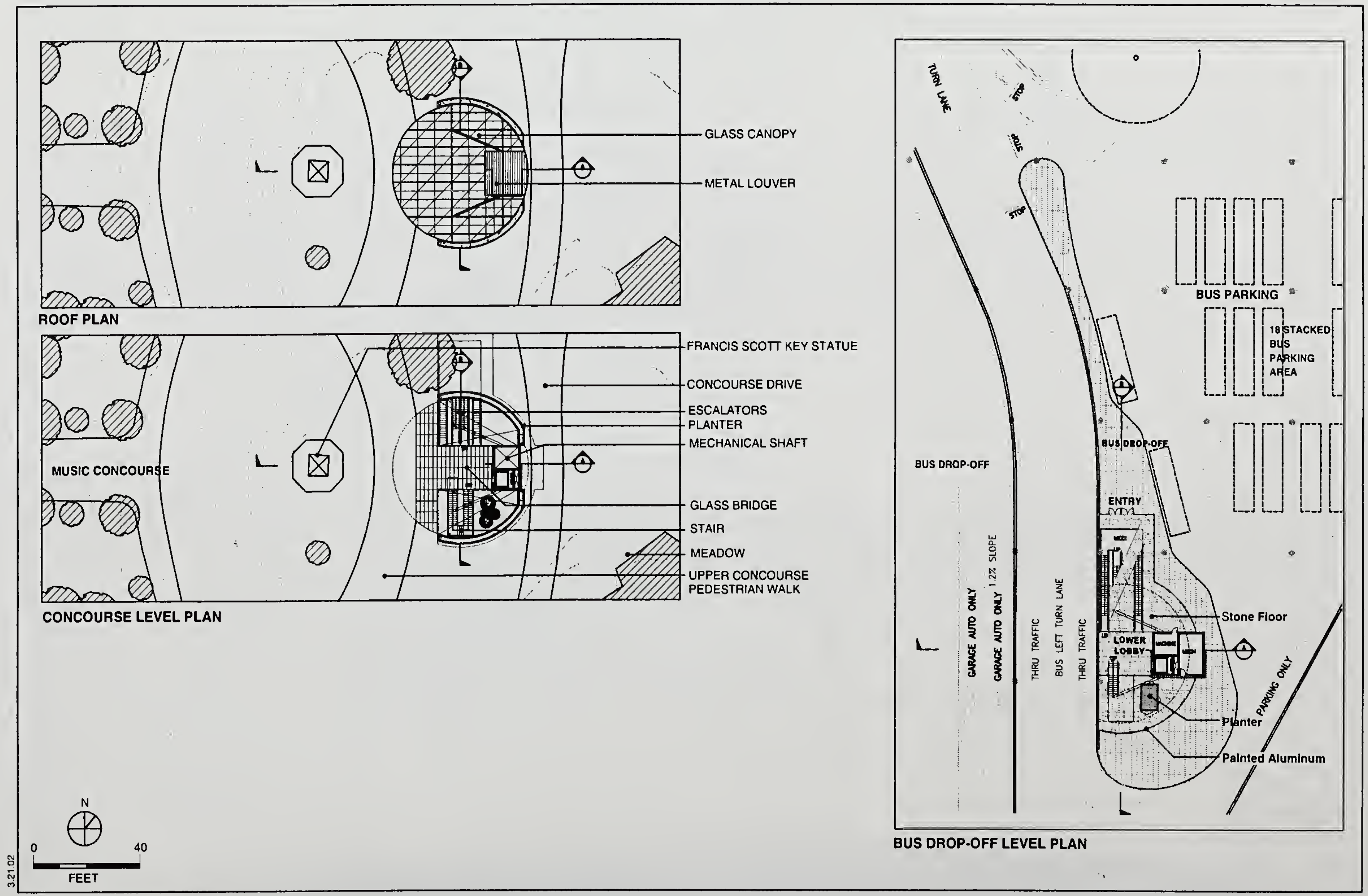
FIGURE 7: SITE SECTIONS AT TRANSIT CENTER



SOURCE: Gordon H. Chong & Partners

GOLDEN GATE PARK CONCOURSE AUTHORITY PROJECTS

FIGURE 8: TRANSIT CENTER PLAN

connections to Golden Gate Park from the following potential transit hubs: Caltrain, Ferry Building, BART/16th Street Station, F-Line at Market, Transbay Terminal, and N Judah at Ninth Avenue. Other potential connecting points include The Presidio, Marina Green, Golden Gate Bridge, Fisherman's Wharf, North Beach, Chinatown, Market Street, Embarcadero, and PacBell Park. The shuttle would use zero-emission vehicles with approximately 20- to 35-passenger capacity. Preliminary routes, stops and operating/maintenance planning is currently underway. A schedule for launching Cultural Shuttle operation is yet to be determined. The Cultural Shuttle is part of the GGPCA Projects and was not analyzed in the Golden Gate Park Master Plan.

Traffic Calming

The conceptual design for traffic calming as part of the Proposition J projects is being developed for narrowed travel lanes and shared-use roadways in Golden Gate Park. The plan would also incorporate improvements identified in the Golden Gate Park Master Plan. Proposed traffic calming measures under Proposition J would include:

- Re-striping of Martin Luther King, Jr. Drive to enhance visibility at crosswalks and bicycle lanes.
- Traffic calming on Academy Drive in conjunction with Music Concourse area surface improvements (to be developed).
- Traffic calming on Middle Drive East in conjunction with the Concourse Parking Facility, as needed.
- Testing and installation of changeable speed signs along John F. Kennedy Drive.

Traffic calming measures identified in the Golden Gate Park Master Plan and analyzed in the Golden Gate Park Master Plan EIR that may be implemented as part of that plan include:

- John F. Kennedy/Stanyan/Kezar entry improvements/traffic calming.
- Landscape Extensions on eastern John F. Kennedy Drive.
- Tea Garden Drive Traffic Calming.
- Intersection paving reductions at the following locations: Stow Lake Drive at John F. Kennedy Drive; Haight Street at Stanyan Street; Martin Luther King, Jr. and Great Highway.
- Stanyan/Fulton intersection improvements.
- Conversion of 30th Avenue to a one-way entrance into the Park.

Parking Management

The Golden Gate Park Master Plan encourages transit use, provides incentives for visitors to the Park to use transit or rideshare, and discourages commuter parking by identifying areas for time-limited parking. The GGPCA Projects would implement improvements identified in the

Golden Gate Park Master Plan including time-limited parking and phased parking removal. Parking management measures that would be part of the GGPCA Projects would include:

- Elimination of 800 surface parking spaces in Golden Gate Park including about 200 spaces in the Music Concourse area, as required by Proposition J.

Parking Management measures identified in the Golden Gate Park Master Plan and analyzed in the Golden Gate Park Master Plan EIR that will be implemented as part of the GGPCA Projects include:

- Establishing three to four parking time limits in the East Park on Conservatory Drive, Bowling Green Drive, Kezar Drive, and portions of John F. Kennedy Drive and Martin Luther King, Jr. Drive. This measure has been approved by the Recreation and Park Commission, and will be implemented in 2002.
- Parking removal in association with other measures, e.g. road closures and traffic calming. Approximately 100 on-street spaces would be removed at the following locations: Middle Drive West - approximately 40 spaces; Waller Street - approximately 40 spaces; 7th Avenue - approximately 15 spaces; and 47th Avenue - approximately 5 spaces.

Bicycle/Pedestrian Improvements

The Golden Gate Park Master Plan and the San Francisco Bicycle Plan (1997) provide implementation recommendations for bicycle and skating routes, lanes, paths and trails within Golden Gate Park. The conceptual design is being developed for a dedicated bike lane along John F. Kennedy Drive and improvements to existing paths. The GGPCA would work with the Recreation and Park Department to make pedestrian safety improvements. Bicycle, skating and pedestrian improvement measures under Proposition J include:

- Installation of new fluorescent-paint pedestrian crossing signs and ladder markings at approximately 100 crosswalks, to improve pedestrian safety throughout the Park.
- Elimination of vehicle parking on selected Park roadways, to be determined, to provide more right-of-way for bicycles.

Bicycle/Pedestrian Improvements identified in the Golden Gate Park Master Plan and analyzed in the Golden Gate Park Master Plan EIR that will be implemented as part of the Golden Gate Park Concourse Authority Projects include:

- Provision for bicycle parking at all major attractions.
- Multi-Use Path Improvements - along the Great Highway, in the central western portion of the Park, and along Kezar Drive.

Road Closures

In accordance with the Golden Gate Park Master Plan, the Recreation and Park Department and Commission will identify and implement road closures in Golden Gate Park. The Golden Gate Park Concourse Authority (GGPCA) will work with the Department of Recreation and Parks on the design of the road closures. Road closures identified in the Golden Gate Park Master Plan and analyzed in the Golden Gate Park Master Plan EIR that may be implemented by the Recreation and Park Department in coordination with the GGPCA Projects include:

- Arguello Boulevard - northern segment of the block between Kezar Drive and Lincoln Way.
- Conservatory Drive East - between Arguello Boulevard and John F. Kennedy Drive.
- Middle Drive West - middle segment between Martin Luther King, Jr. Drive and Transverse Drive (implemented).
- Music Concourse Roadway - segment behind the Band Shell.
- South Fork Drive - between John F. Kennedy Drive and Martin Luther King, Jr. Drive.
- Waller Street - between Kezar Drive and Stanyan Street.
- Seventh Avenue entry - between Martin Luther King, Jr. Drive and Lincoln Way.
- 47th Avenue - segment just north of John F. Kennedy Drive near the Golden Gate Park Golf Course.

MUNI Service Improvements

The Golden Gate Park Concourse Authority (GGPCA) would work cooperatively with the San Francisco Municipal Railway (MUNI) to enhance and market transit routes to Golden Gate Park. Planned MUNI improvements include:

- Use of new destination signage on the 44-O'Shaughnessy bus line to identify Golden Gate Park as a destination on this route.

OTHER CONCOURSE AREA PROJECTS

The approved New de Young Museum project and the proposed California Academy of Sciences renovation project are not part of Proposition J, and are proceeding independently of the GGPCA Projects. However, coordination among the GGPCA, the de Young Museum, the Academy of Sciences, the Strybring Arboretum, the Recreation and Park Department and Commission, and other trustee and responsible agencies would occur during the implementation of the Proposition J Projects to meet the goals and charge of the GGPCA and the Golden Gate Park Master Plan.

In addition, the Board of Supervisors is currently considering legislation to implement a partial closure of John F. Kennedy Drive on Saturdays. This proposal is not part of the Concourse Authority projects.

PROJECT SCHEDULE

The proposed underground parking facility would be completed in three phases to coordinate with construction schedules for the adjacent institutions, the New de Young Museum and the California Academy of Sciences (see Figure 9). Currently, the New de Young Museum is scheduled to open in mid-2005. Renovation of the Academy of Sciences is assumed to be completed in late 2007. As such, Phase 1 would include construction of the northern portion of the garage, nearest the New de Young Museum, with access from Tenth Avenue via a tunnel under John F. Kennedy Drive. Phase 1 would allow temporary two-way traffic to continue through the Concourse along Academy Drive. The parking structure adjacent to the Academy of Sciences would be constructed in Phase 2, after the de Young parking section is completed. A third phase would include the public transportation elements, underground street, and bus parking to be constructed concurrently with the Academy section of the garage (Phase 2). Phase 3 is currently an un-funded public traffic enhancement to the Project. For transportation and parking and other key EIR topics, the EIR will present project impacts by phase.

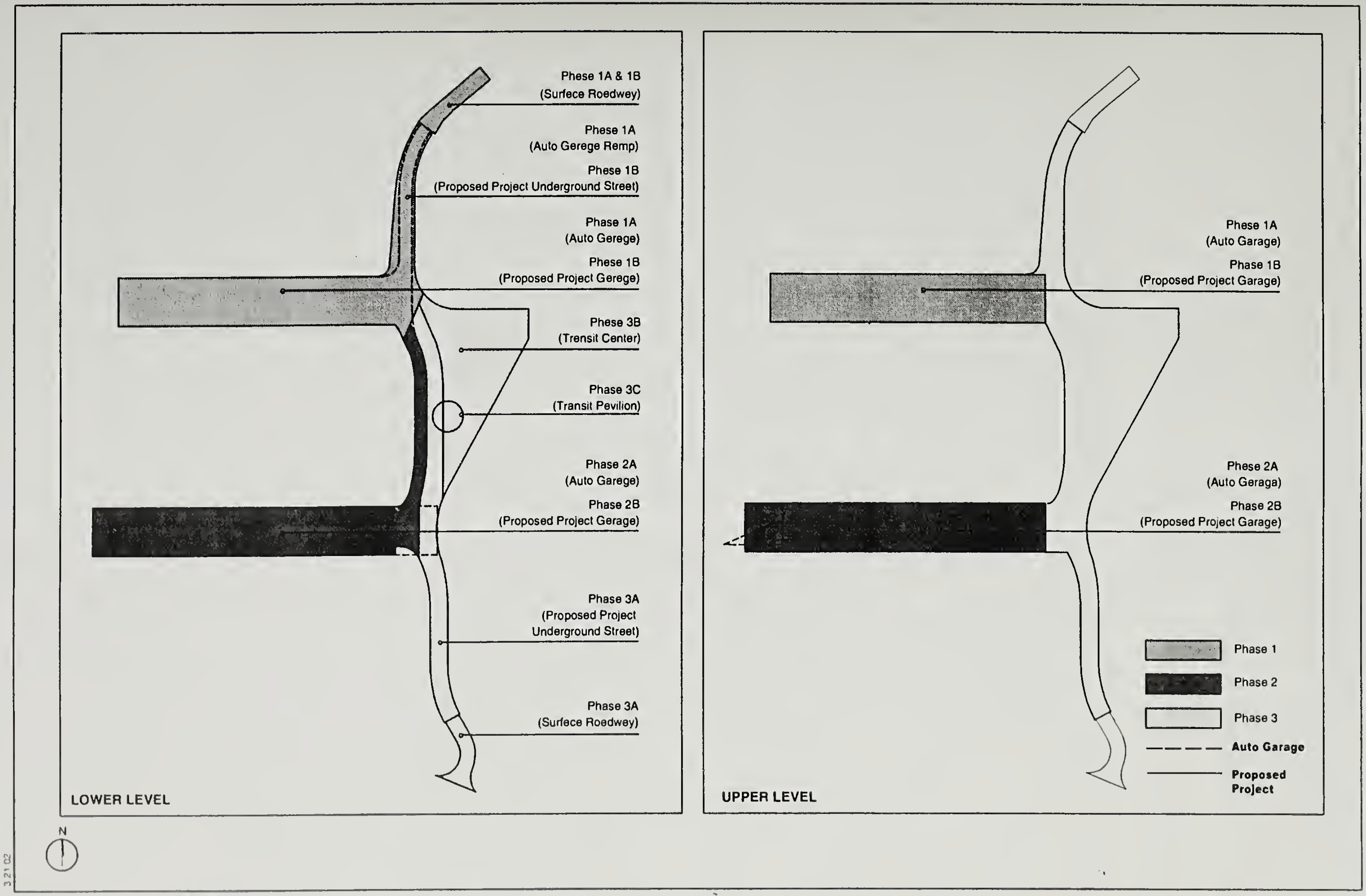
Many of the Proposition J elements are in preliminary phases and will not be implemented until a later date. The Intra-Park Shuttle completed its first pilot season and the second pilot season began May 4, 2002; it will operate on weekends and holidays through October 2002. Parking management measures began in April 2002, traffic calming measures are anticipated to occur from Summer to Fall 2002, and bicycle and pedestrian improvements, as well as road closures, are anticipated to occur in Summer 2003. Transit improvements, which will provide future service to Golden Gate Park, are being developed independently by MUNI. The start date for the Cultural Shuttle is to be determined; preliminary design of routes, stops, and operating/maintenance plans for this service are currently underway.

The Project Site is within a P (Public Use) zoning district, and within an OS (Open Space) Height and Bulk district. Permitted uses in a P zoning district include public structures of the city and other governmental agencies when in conformity with the *San Francisco General Plan*. Approvals for various aspects of the project may be required from the Board of Supervisors, the Planning Commission, the Recreation and Park Commission and the Zoning Administrator. There are no specific height and bulk limits in the OS height and bulk district. Height and bulk of buildings and structures are determined in accordance with the objectives and policies of the *San Francisco General Plan*.

II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

This Initial Study examines the Golden Gate Park Concourse Authority Projects to identify potential effects on the environment. On the basis of this study, project-specific effects that



SOURCE Gordon H Chong & Partners

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FIGURE 9: PHASING PLAN

have been determined to be potentially significant relate to visual quality, transportation and parking, noise, air quality and climate, and historic resources. These issues will be analyzed in an Environmental Impact Report (EIR). Land use and planning will be discussed in the EIR for informational purposes. Topics noted "TO BE DETERMINED" mean that discussion in the EIR will enable a determination whether or not there would be a significant impact.

B. EFFECTS FOUND NOT TO BE SIGNIFICANT

The following effects of the Golden Gate Park Concourse Authority Projects have been determined to be either insignificant or to be mitigated through measures included in the project: population; utilities and public services; biology; geology and topography; water; hazards; energy and natural resources; and cultural resources (archaeological resources). Those issues are discussed below and require no further environmental analysis in the EIR.

III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION

A. COMPATIBILITY WITH EXISTING ZONING AND PLANS

		Not Applicable	Discussed
1.	Discuss any variances, special authorizations, changes proposed to the City Planning Code or Zoning Map, if applicable.		X
*2.	Discuss any conflicts with any other adopted environmental plans and goals of the City or Region, if applicable.		X

The project site is within a P (Public Use) zoning district, and within an OS (Open Space) Height and Bulk district. As a continuation of existing activities at this location in Golden Gate Park, the underground parking facility would be compatible with existing land use controls, zoning and would not be anticipated to require amendments to the *San Francisco General Plan* or amendments to zoning. The parking facility would include ventilation features and new vehicle and pedestrian access in the Concourse area. There are no specific height and bulk limits within Open Space Height and Bulk districts. Height and bulk of buildings and structures in Open Space Districts are determined, as part of project approval, in accordance with the objectives, principles and policies and in conformity with the Master Plan (San Francisco Planning Code Section 290). The project would not conflict with the Golden Gate Park Master Plan, which was proposed to implement needed infrastructure and disabled access improvements in Golden Gate Park. The Golden Gate Park Master Plan EIR, certified in July 1998, and adoption of the Master Plan by the Recreation and Park Commission do not preclude responsible planning efforts regarding the future of cultural institutions, such as the de Young Museum and the Academy of Sciences, in Golden Gate Park. Information and analysis contained in the EIR for the Golden Gate Master Plan will be utilized and relied upon in the environmental review of the proposed projects as appropriate. This will ensure consistency between the Master Plan and Concourse Authority Plan. Parking requirements would be met by the proposed parking facility. The EIR will discuss necessary project approvals and will review the project in relation to the Golden Gate Park Master Plan, *San Francisco General Plan* and City Planning Code.

B. ENVIRONMENTAL EFFECTS

1. Land Use

		Yes	No	Discussed
*a.	Disrupt or divide the physical arrangement of an established community?		X	X
b.	Have any substantial impact upon the existing character of the vicinity?		X	X

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

The project site, in and around the Music Concourse, is located within Golden Gate Park. The Music Concourse is surrounded by other open space uses in the park; the Hagiwara Japanese Tea Garden is located northwest of the project site, the de Young Museum is north of the Music Concourse, to the west is the Spreckels Temple of Music (Band Shell) and the Strybring Arboretum, and the California Academy of Sciences is south of the project site. Three pedestrian tunnels dating from the California Midwinter International Exposition in 1894 are located at the northeast, southeast, and southwest edges of the Music Concourse.

While the project would concentrate overall parking activity for the Hagiwara Japanese Tea Garden, the New de Young Museum and the Academy of Sciences in Golden Gate Park within the Concourse area, it is not anticipated to significantly intensify activity on the site beyond that which currently exists for the adjacent institutions. The Project activity would be consistent with existing land uses on the site. The project would not disrupt or divide the physical arrangement of a community. The project would not have a potentially significant effect on land use but will be discussed in the EIR for informational purposes.

2. Visual Quality

		Yes	No	Discussed
*a.	Have a substantial, demonstrable negative aesthetic effect?	TO BE DETERMINED		
b.	Substantially degrade or obstruct any scenic view or vista now observed from public areas?	TO BE DETERMINED		
c.	Generate obtrusive light or glare substantially impacting other properties?		X	X

The proposed project would construct an underground parking facility for approximately 800 vehicles in the Music Concourse area in Golden Gate Park. The project would change visual conditions in the Concourse vicinity and other areas of Golden Gate Park, with access tunnels at Tenth Avenue and Fulton Street, and at Music Concourse Drive or Middle Drive East. The parking facility would also include new pedestrian access points in the Music Concourse bowl.

The parking facility would maintain the Concourse bowl and would not result in changes to the topography of the Concourse area. The project would also introduce a new structure to serve as an entry to the bus parking and transit center at the east end of the Music Concourse (see Figures 7 and 8). The new structure would be visible from the Concourse area, the institutions, and possibly from select views from nearby locations within Golden Gate Park. The EIR will discuss views of these new elements in the park.

As noted in the Project Description, above, vehicle parking, drive aisles, pedestrian walkways and vehicular tunnels would be illuminated as part of the proposed parking facility. All drive aisles and parking spaces would be illuminated with one fixture per bay. The proposed parking facility would include illumination of all pedestrian tunnels. The proposed garage project

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

would generally replace the existing street lighting poles to meet the Park Lighting specifications identified in the Golden Gate Park Master Plan. The exact location, size, and specific lighting fixtures will be further discussed in the EIR.

The project would comply with City Planning Commission Resolution 9212, which prohibits the use of mirrored or reflective glass. Therefore, mirrored glass would not be used, and the underground garage would not result in glare affecting other properties. The EIR will, therefore, not discuss glare. The EIR will discuss the project's design, appearance, changes in landscaping, possible effects on views and its relation to the scale of surrounding development.

3. Population

		Yes	No	Discussed
*a.	Induce substantial growth or concentration of population?	___	X	X
*b.	Displace a large number of people (involving either housing or employment)?	___	X	X
c.	Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	___	X	X

The proposed project would not be expected to add a significant number of employees to San Francisco's economy. Currently, there are no parking attendants or other parking services staff employed for parking areas in the Music Concourse. It is anticipated that some additional staff for uses in the park would be required; however, any increase in staff for new park operations as part of the Proposition J projects in Golden Gate Park is to be relatively small and would not significantly increase park staff. This potential increase in employment would be minor in the context of total employment in San Francisco.

The underground parking facility would accommodate visitors to Golden Gate Park and the institutions in the Concourse. The EIR will discuss visitorship projections and include those data in the analysis of project transportation and parking effects.

The project would not construct housing nor displace existing housing. The proposed project would not create a substantial demand for new housing. The effect of increased numbers of visitors on transportation and related effects will be discussed in the EIR.

Based on the above analysis, no significant physical environmental effects on housing demand or population would occur, and these issues require no further analysis in the EIR.

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

4. Transportation

		Yes	No	Discussed
*a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	TO BE DETERMINED		
b.	Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	TO BE DETERMINED		
c.	Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	TO BE DETERMINED		
d.	Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	TO BE DETERMINED		

The proposed underground parking facility could place increased demands on the local transportation system, including increased traffic, transit demand, and parking demand due to the relocation of existing parking within Golden Gate Park. The EIR will discuss project effects related to transportation and circulation, including intersection operations, transit demand, and impacts on pedestrian circulation, parking, and freight loading, as well as construction impacts.

5. Noise

		Yes	No	Discussed
*a.	Increase substantially the ambient noise levels for adjoining areas?	TO BE DETERMINED		
b.	Violate Title 24 Noise Insulation Standards, if applicable?		X	X
c.	Be substantially impacted by existing noise levels?		X	X

The New de Young Museum, the California Academy of Sciences, the Hagiwara Japanese Tea Garden, and the Shakespeare Garden are identified in the Golden Gate Master Plan as sensitive noise receptors within Golden Gate Park. These outside areas that have been designated for ceremonies and meditation and museums and educational facilities may be affected by construction noise resulting from the project as demolition, excavation, and building construction would temporarily increase noise in the project area. The proposed project is anticipated to require pile driving during construction, which would generate noise and possibly vibrations that could be considered an annoyance by occupants and park users in these nearby areas. Noise levels at receptors near the project site would depend on their distance from the

* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

source and on the presence or absence of noise barriers. Vibrations from the construction activities could be felt in adjacent buildings, which include museum, educational, and outdoor park uses. To mitigate any impacts associated with noise generated from construction activities, the project would comply with regulations set forth in the San Francisco Noise Ordinance.

Construction, including demolition, foundation, structure, and interior work, would be expected to last about 24 months. Although construction noise could annoy nearby workers and visitors to Golden Gate Park and its facilities, particularly those adjacent to the project site, the impacts would be temporary and would generally be limited to a period of several months during which the foundations and structural elements would be built. Interior construction noise would be substantially reduced by the exterior walls. The proposed parking facility would require drilling and placement of foundation piles. Implementation of the mitigation measure included as part of the project, as identified on p. 34, would ensure that pile driving activities during construction would be limited so as to result in the least disturbance to neighboring uses. The EIR will discuss potential neighborhood noise impacts during construction.

Construction activities at the Music Concourse area related to the New de Young Museum and the Academy of Sciences would also create noise effects. The EIR will consider cumulative noise effects of the Concourse projects, to the extent that information is available.

The EIR will evaluate potential noise effects during construction and garage operations to the user environment of Golden Gate Park.

6. Air Quality / Climate

		Yes	No	Discussed
*a.	Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	TO BE DETERMINED		
*b.	Expose sensitive receptors to substantial pollutant concentrations?	TO BE DETERMINED		
c.	Permeate its vicinity with objectionable odors?		X	X
d.	Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	TO BE DETERMINED		

Construction Emissions

During construction, air quality could potentially be affected for a short period. Heavy equipment could create fugitive dust and emit nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), hydrocarbons (HC), and particulate matter with a diameter of less than 10 microns (PM_{10}) as a result of diesel fuel combustion. The primary pollutant of concern in fugitive dust would be PM_{10}.

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

Construction emissions would be short term and temporary, but could still cause adverse effects on local air quality. Bay Area Air Quality Management District (BAAQMD), in its CEQA Guidelines, has developed an analytical approach that obviates the need to quantitatively estimate these emissions. Instead, BAAQMD has identified a set of feasible PM_{10} control measures for construction activities. The project includes these measures (see pp. 34-35) to reduce the effects of construction activities to an insignificant level. Because the project would include these mitigation measures, it would not cause significant construction-related air quality effects. The EIR will briefly discuss these effects for informational purposes.

Emissions from Operations
The extent of foreseeable traffic increases has not been determined. The project could potentially result in air quality impacts if traffic volumes increase substantially. The EIR will calculate emissions and compare them to applicable significance thresholds published by the Bay Area Air Quality Management District. Carbon monoxide emissions and the possibility of exceeding carbon monoxide standards at congested intersections and nearby sensitive receptors could be of particular concern.

Shadows
Section 295 of the City Planning Code was adopted in response to Proposition K (passed in November 1984) in order to protect certain public open spaces from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year round. Section 295 restricts new shadow upon public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the City Planning Commission finds the impact to be insignificant. The proposed entry structure to the transit center, to be constructed at the east end of the Music Concourse, would not exceed a height of 40 feet; other portions of the proposed parking facility would be below grade and would not have the potential to create new shadow on the Concourse area. Therefore, a shadow study will not be required nor will shadow effects be discussed in the EIR.

Wind
The proposed project would maintain the approximate overall height of the existing landscape, paved areas, and structures on the site, with the exception of the proposed 14- to 16-foot-tall glass canopy over the transit center entrance, and would not create the potential to channel wind or create discomfort for pedestrians and people in nearby seating areas. The project site is largely sheltered from prevailing winds by the existing dense forest upwind.[1] Therefore, wind conditions impacts would not be considered significant, and the EIR will not discuss them further.

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

7. Utilities / Public Services

		Yes	No	Discussed
a.	Breach published national, state or local standards relating to solid waste or litter control?		X	X
b.	Extend a sewer trunk line with capacity to serve new development?		X	X
c.	Substantially increase demand for schools, recreation or other public facilities?		X	X
d.	Require major expansion of power, water, or communications facilities?		X	X

The project would replace existing park uses with similar uses, albeit generating somewhat more increased transportation and pedestrian activity at the site. The project would not substantially increase existing solid waste, water demand, or wastewater at the project site. Therefore, the EIR will not discuss these issues further.

As a parking facility for existing cultural and recreational uses in Golden Gate Park, the project would not directly change the demand for schools, recreation or other public facilities.

Golden Gate Park presently receives police and fire protection services, and the project would create little additional demand for fire and police services in the area. Although the project could increase the number of calls received from the Music Concourse area or the level of regulatory oversight that must be provided as a result of the increased concentration of activity on-site, the increase in responsibilities would not likely be substantial in light of the existing demand for police and fire protection services in Golden Gate Park. Time-limited parking in the garage would result in the need for two new Department of Parking and Traffic patrols; however, the increase in demand would not require the construction of any new police or fire prevention facilities. For these reasons, the EIR will not discuss further police or fire protection services.

The project site is proximate to existing power utilities and communication facilities. The new parking structure would tap into the existing power and communications grids. Primary voltage supply (12KV) from Pacific Gas& Electric (PG&E) point-of-service at Fulton Street and Eighth Avenue and from Fulton Street and Tenth Avenue would supply electricity to the parking structures and to the transit center. This supply would intercept and re-route one existing supply to the de Young Museum from Fulton Street and Tenth Avenue. The project may require a future extension to a new location near the California Academy of Sciences building to include the interception and re-routing of the existing power supply to the California Academy of Sciences from Fulton Street and Eighth Avenue. The power needs of the proposed parking facility would be coordinated with PG&E, as described in the Park's Electrical Master Plan, to manage ongoing upgrades to the parks electrical system under the 1992 Golden Gate Park Bond infrastructure work and minimize construction disruptions in the park. Therefore,

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

no new power or communications facilities would be necessary as a result of project implementation, and the EIR will not discuss this issue further.

8. Biology

		Yes	No	Discussed
*a.	Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	___	X	X
*b.	Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	___	X	X
c.	Require removal of substantial numbers of mature, scenic trees?	___	X	X

The proposed project site is within Golden Gate Park, an area where intensive landscaping and landscaping maintenance activities have occurred since 1871. As such, the overall suitability for wildlife habitat and native and naturalized plant species has decreased since the late 1800s.[2] The project site is not identified in the Golden Gate Park Master Plan as a known area of wildlife species habitation or native and/or naturalized plant species and development of the site would not affect any rare, threatened or endangered plants, animals or habitats.[3] The project would not interfere with any resident or migratory species. Therefore, this topic will not be discussed in the EIR.

The Concourse Authority has retained a consultant arborist to prepare a tree survey report for review of tree species, location, and condition. This information will be used to plan landscape features for the Concourse Authority projects. Proposed landscaping, as part of the project and the Golden Gate Park Master Plan, and potential effects to existing trees in the project vicinity will be discussed in the EIR, as part of Visual Quality.

9. Geology / Topology

		Yes	No	Discussed
*a.	Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	___	X	X
b.	Change substantially the topography or any unique geologic or physical features of the site?	___	X	X

The Community Safety Element of the *San Francisco General Plan* contains maps that show areas subject to geologic hazards. The project site is located in an area subject to ground shaking from earthquakes along the San Andreas and Northern Hayward Faults and other faults in the San Francisco Bay Area (Maps 2 and 3 in the Community Safety Element). The

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project site is not in an area of liquefaction potential (Map 4 in the Community Safety Element), a Seismic Hazards Study Zone designated by the California Division of Mines and Geology.

The Department of Building Inspection, in its review of the building permit application, requires the project sponsor to prepare a geotechnical report that assesses the nature and severity of the hazards at the site and recommends project design and construction features to reduce the hazards. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when the Department of Building Inspection reviews the geotechnical report and building plans for a proposed project, it determines necessary engineering and design features for the project to reduce potential damage to structures from ground shaking. The project includes a mitigation measure (see p. 35) to facilitate Building Code compliance and reduce potential geological hazards. In this way, potential damage to structures from geologic hazards at a project site would be ameliorated through the Department of Building Inspection requirement for a geotechnical report and review of the building permit application. A geotechnical report was prepared for the Golden Gate Park parking facility by Treadwell & Rollo, Inc. Environmental and Geotechnical Consultants as part of preliminary design investigations in May 1999.

The project would include excavation on the site for construction parking facilities, tunnel access, and a transit center below grade in the Concourse area. Excavation would displace approximately 242,000 cubic yards (cy) of soil and would replace about 38,000 cy of soil atop the parking structure and tunnels to reestablish the existing park topography in the Concourse area after their construction. When complete, the project would not significantly alter the topography of the site, or otherwise affect any unique geologic or physical features of the site.

No further analysis of geology and seismicity is required in the EIR.

10. Water

		Yes	No	Discussed
*a.	Substantially degrade water quality, or contaminate a public water supply?		X	X
*b.	Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?		X	X
*c.	Cause substantial flooding, erosion or siltation?		X	X

The project would include excavation to a maximum depth of about 35 feet beneath the existing grade at Tea Garden and Academy Drives. As noted below, groundwater is not expected to be encountered at this depth. However, should groundwater be encountered during construction, it would be subject to the requirements of the San Francisco Industrial Waste Ordinance (Ordinance No. 199-77), requiring that groundwater meet specified standards before being discharged into the sewer system. The Bureau of Environmental Regulation and

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

Management of the Department of Public Works would be notified if the project were to require dewatering.

Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the soils report would contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater monitoring wells and/or instruments would be used to monitor potential settlement and subsidence. If, in the judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor. The project would include mitigation measures to reduce the potential water quality effects of dewatering (see pp. 35-36).

The project site is almost entirely paved or covered by landscaping. The proposed parking facility, entry tunnel from Tenth Avenue, and transit center would have a footprint of approximately 250,000 sq. ft. below the grade of existing paved surfaces including Tea Garden and Academy Drives. The footprint of the connector tunnel, completing the through street to Middle Drive East from the southern portion of the garage, would be approximately 40,000 sq. ft. Storm drainage for the underground structures would be minimal. The roofs of the underground structures would be sloped to facilitate the rainwater to percolate through the soils. Light wells, stairwells, and air shafts would be provided with sump pumps to remove rainwater. The tunnel entrances would include trench drains and sump pumps at the ramps. Sub-terrain drainage is anticipated to relieve any potential hydrostatic pressure of the vertical foundation walls. Duplex sump pumps would be provided at locations designated by a structural engineer and/or architect. Perforated pipes would be provided along the entire perimeter of the underground structures. The perforated pipes would be connected to the sump pump inlets and would be discharged to overhead gravity storm drainage system on site. Pipe size would be anticipated to be four-inch maximum.

The parking facility would be provided with dry sumps on the lower levels. The sumps would have watertight covers to comply with the building code to handle any accidental firewater or spills. Submersible portable pumps would be placed in the dry sump to remove any liquid. Floor drains, oil separators, liquid detectors, or sloping floor design would not be required for the parking garages. A duplex sewerage ejector would be used at each toilet facility of the cashier offices. A sump pump system would be provided at the bottom of the elevator shaft to handle emergency spills of hydraulic fluid of elevator machine. The system would have ½ horse-power sump pump, fluid sensor, remote alarm, automatic control, valves, wiring, piping, and 100 gallon fluid container. Three six-inch lateral sewer pipes would be anticipated for each garage section.

The through tunnel and bus parking would be designed as a single drainage system. Due to the anticipated traffic volume, accidental spills from buses, floor drains, underground oil

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

separators, and sewerage ejectors would be provided for this area. The floor should be sloped to facilitate drainage to floor drains. Floor drains would be provided with trap primers. Two six-inch sewer pipes would be anticipated for the bus parking area.

The project would not substantially affect the area of impervious surface at the site or alter site drainage. Project-related wastewater and storm water would to flow to the combined sewer system. During construction, requirements to reduce erosion would be implemented pursuant to California Building Code Chapter 33, Excavation and Grading. During operations, the project would comply with all local wastewater discharge requirements.

No further analysis of water resources is required in the EIR.

11. Energy / Natural Resources

		Yes	No	Discussed
*a.	Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	___	X	X
b.	Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	___	X	X

San Francisco consumers have recently experienced rising energy costs and uncertainties regarding the supply of electricity. The causes of these conditions are under investigation and are the subject of much debate. Part of the problem may be that the State does not generate sufficient energy to meet its demands and must import energy from outside sources. Another part of the problem may be the lack of cost controls as a result of deregulation. The California Energy Commission (CEC) is currently considering applications for the development of new power-generating facilities in San Francisco, the Bay Area and elsewhere in the State. These facilities could supply additional energy to the power supply "grid" within the next few years. The project would meet current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection. For this reason, it would not cause a wasteful use of energy. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco and the State and would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed projects would not result in a significant physical environmental effect and will not be further discussed in the EIR.

12. Hazards

		Yes	No	Discussed
*a.	Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	___	X	X

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

	Yes	No	Discussed
*b. Interfere with emergency response plans or emergency evacuation plans?	___	X	X
c. Create a potentially substantial fire hazard?	___	X	X

Hazardous Materials Use
Project-related hazardous materials use would not be anticipated to occur as part of the Concourse Authority projects. As such the proposed projects would not be considered to pose any substantial public health or safety hazards.

Soil and Groundwater
Soil and groundwater conditions at the project site have not been thoroughly investigated; however, the site does not appear on the *State of California Hazardous Waste and Substances Sites List*.[4] Recent project geotechnical investigation of the groundwater in the area of the Music Concourse and the Band Shell indicates that the groundwater level is deep within the soil layers. The geotechnical investigation did not encounter groundwater in the Concourse area, with test borings extending to a maximum depth of 71 feet near the Band Shell and 52 feet in other areas of the Music Concourse.[5] As such, excavation and construction of the proposed project, which would not exceed 35 feet, would not have the potential to impact groundwater.

Project plans call for the excavation and removal of roughly 242,000 cy of soil to accommodate the underground portions of the project. If residual soil and groundwater contamination were to exist in areas to be excavated, contaminated soil or groundwater could be encountered during excavation and other earth-moving activities. Without appropriate safeguards, such activities could potentially expose workers and possibly the public to chemical compounds in soils, soil gases (gases or vapors, mostly air, trapped within soil), or groundwater. Exposure would most likely occur through skin contact or inhalation. Workers directly engaged in on-site activities would face the greatest potential for exposure to contaminants. The public could also be exposed if access to the construction site were insufficiently controlled. Hazardous materials exposure could cause various short-term or long-term health effects specific to each chemical present at the site if present in sufficient concentration and duration.

Soil and groundwater contaminants would need to be characterized adequately to ensure that appropriate plans are implemented for soil and groundwater handling. Any contaminated soil or groundwater disturbed at the site would need to be managed appropriately, and residual risks to future occupants of the site would need to be kept within acceptable levels as determined by the San Francisco Department of Public Health and other oversight agencies. Unless soil and groundwater management plans are adequately prepared and implemented, the project could pose a significant impact by potentially creating a substantial human health hazard or involving the disposal of materials in a manner that poses substantial hazards.

The project includes a mitigation measure to further characterize soil and groundwater conditions (pp. 36-37). If additional environmental studies conclude that soil and groundwater conditions could pose significant human health or safety hazards, a Site Safety and Health Plan

* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

would need to be prepared pursuant to California Division of Occupational Safety and Health requirements and National Institute for Occupational Safety and Health guidance to ensure worker safety.[6] Under these requirements, the Site Safety and Health Plan would need to be prepared prior to initiating any earth-moving activities at the site. The plan would contain policies and procedures to protect site workers from potential health and safety impacts related to contaminated soil and groundwater. The plan would apply to all site activities through the completion of earthwork construction. It would include specific training requirements and personal protection equipment for on-site workers. The Site Safety and Health Plan is not required to include measures to minimize the potential for public exposure. A mitigation measure is included to minimize potential public exposure (pp. 36-37).

Building Materials
The proposed project would not demolish existing buildings or structures during construction of the proposed parking facility. As such, the project would not have the potential to encounter asbestos identified in caulking, insulation, grout, mastic, vapor barrier, and flooring, among other materials nor lead or lead-based paints, polychlorinated biphenyls (PCBs), mercury, or other hazardous materials. However, the project includes a mitigation measure to reduce the potential health risks associated with potentially hazardous subsurface building materials that may be uncovered during excavation of the site by securing the investigation, removal, and disposal of such materials prior to demolition (see p. 37). The measure would ensure compliance with existing regulations applicable to the management of any potentially hazardous building components. For example, PCBs are regulated under the federal Toxic Substances Control Act of 1976, and mercury is regulated as a hazardous waste. These existing laws and regulations would help to ensure the health and safety of workers, neighbors, and the natural environment.

Fire Safety and Emergency Access
San Francisco ensures fire safety through provisions of the Building Code and Fire Code. Existing buildings are required to meet standards contained in these codes. The proposed project would also conform to these standards, which may include development of an emergency procedure manual and an exit drill plan. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be addressed during the permit review process. The project would include pedestrian access points to the Concourse at three locations at the south side and three locations at the north side of the Concourse bowl; an additional pedestrian access point to the Concourse area surface would be located at the east end of the Concourse at the transit center.

The vehicle parking, bus parking area, and tunnels would be protected with an automatic wet fire sprinkler system in accordance with California Building Code, San Francisco Building Code, and NFPA 13 and 14 Standards. The project would meet the requirements of the fire marshal. No dry standpipe would be required by code.

With implementation of the mitigation measures included as part of the project, as identified on pp. 36-37, potential health and safety issues related to future hazardous materials use, contaminated soil and groundwater, potentially hazardous building components, and fire safety and emergency access would be reduced to less-than-significant levels. Therefore, these issues do not require further analysis and will not be discussed in the EIR.

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

13. Cultural Resources

	Yes	No	Discussed
*a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	TO BE DETERMINED		
b. Conflict with established recreational, educational, religious or scientific uses of the area?		X	X
c. Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?		X	X

Archaeological/Cultural Resources

Archeo-Tec Consulting Archaeologists completed an archival cultural resources evaluation of the project vicinity for potential subsurface historical or prehistoric archaeological resources and to document the history of the area.[7] Potential for the existence of subsurface cultural resources of the prehistoric/protohistoric period (c. 4000 B.C. - A.D. 1775), Spanish/Mexican and Early American era (1776-1848), the Gold Rush era (1849-11857), and the Late 19th Century era (1858-1906) were systematically examined.

There are no currently recorded prehistoric or historical archaeological sites identified within the project site. However, the region's natural state, brush-covered sandy hills and low-lying areas with numerous fresh-water ponds, would have been generally favorable to the establishment of prehistoric or protohistoric settlements and it is possible that subsurface cultural resources from the prehistoric/protohistoric period may be encountered within the parking facility project site. There are no currently recorded archaeological sites within the proposed project site. Early prehistoric resources tend to be deeply buried and are not predictable on the basis of historically known topographic features. Early prehistoric sites have been encountered in San Francisco at depths up to 75 feet below the existing grade.

Golden Gate Park is an area where intensive fill and grading activities have occurred since 1871. Previous construction activities associated with the existing structures, such as excavation, grading and other ground disturbances, have occurred at the project site. Archival sources indicate that architectural and other associated cultural remnants associated with the 1894 California Midwinter International Exposition may lie buried within the Music Concourse area.

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* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

The proposed project would include excavating the project site to a depth of up to about 35 feet to accommodate foundations and parking facilities. The project would include excavation of about 242,000 cy of soil and would replace about 38,000 cy in the Music Concourse after completion of the proposed parking facility. Based upon archival evidence, the proposed project may disrupt or adversely affect prehistoric resources or historical archaeological resources from the prehistoric/protohistoric period and/or the Late 19th Century period. The project includes a mitigation measure (see pp. 37-39) that would reduce the potential impact to cultural resources to a less-than-significant level. Archaeological resources will not be discussed further in the EIR.

Architectural Resources
The proposed project would not demolish any existing structures or buildings in Golden Gate Park. The proposed parking facility project site has been occupied, expanded and modified since 1894 when the Music Concourse was developed for the California Midwinter International Exposition; however, the Music Concourse has been used as a cultural and recreational events locale since that time. The proposed garage facility would not conflict with established uses at the site.

The Music Concourse is encircled by the de Young Museum and the Hagiwara Japanese Tea Garden north and northwest of the Music Concourse, respectively; the Spreckels Temple of Music (Band Shell) at the west end of the Music Concourse; the California Academy of Sciences to the south; and the monument to Francis Scott Key and Park landscape east of the Music Concourse. Three pedestrian tunnels, developed concurrent with the Music Concourse, are near the northeast, southeast and southwest corners of the Music Concourse bowl and extend under the surface roadways (Tea Garden and Academy Drives), connecting from the Concourse bowl to paved pathways outside the Concourse area.

There are no historic districts or properties listed in City, state or federal inventories on the proposed garage facility project site. The de Young Museum and the California Academy of Sciences are not listed on the National Register of Historic Places or the California Register of Historical Resources nor are they subject to the provisions of Article 10 or Article 11 of the City Planning Code. Prominent elements and features of the Music Concourse, such as the monuments; trees; pedestrian tunnels and portals; and the formal, symmetrical pathways within the Concourse bowl are not considered significant individual resources but may contribute to the overall character of the Music Concourse in Golden Gate Park. The Hagiwara Japanese Tea Garden, adjacent to the project site, is listed in the California Register of Historical Resources as a result of a formal determination of eligibility for individual listing on the National Register of Historic Places in 1994. Golden Gate Park, as a whole, and the Spreckels Temple of Music, individually, may be eligible for the National Register of Historic Places.

The project includes plans to reconstruct the existing pedestrian tunnels, their portals, and the Concourse stairways from the bowl to the street level. The garage project would temporarily remove and/or relocate several monuments at the east end of the Concourse during construction activities. Existing trees in the Concourse area would be removed and replaced as part of construction of the access tunnels to Tenth Avenue and Middle Drive East. The proposed garage facility's location adjacent to the Japanese Tea Garden, which is considered a significant historic resource under CEQA, may result in temporary construction-related impacts. The potential impacts of the project on historic resources will be further discussed in the EIR.

C. OTHER

	Yes	No	Discussed
Require approval of permits from City Departments other than the Department of City Planning or Bureau of Building Inspection or from Regional, State or Federal Agencies?		X	

D. MITIGATION MEASURES

	Yes	No	N/A	Discussed
1. Could the project have significant effects if mitigation measures are not included in the project?	X			X
2. Are all mitigation measures necessary to eliminate significant effects included in the project?		X		

The following are mitigation measures related to topics determined to require no further analysis in the EIR. The EIR will contain a chapter describing mitigation measures proposed as part of the project and measures that would be, or could be, adopted to reduce potential adverse project effects identified in the EIR.

Construction Noise

1. The project sponsor would require project construction contractor(s) to predrill holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. If pile driving is required, the project sponsor would also require that contractors limit pile driving activity to result in the least disturbance to neighbors.

Air Quality / Climate

2. The project sponsor would require the contractor(s) to spray the site with water during excavation and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soil, sand or other such material; and sweep surrounding streets during excavation and construction at least once per day to reduce particulate emissions.

3. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of

particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the construction period.

Geology / Topography

4. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractors would follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor would ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent building for damage during construction, if recommended by the geotechnical engineer.

5. If dewatering were necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments would be used to monitor potential settlement and subsidence. If, in the judgement of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

   If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

6. The project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems would be modified as necessary in the event that substantial movements are detected.

Water Quality

7. If dewatering were necessary, the project sponsor would follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.

If dewatering were necessary, groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

8. The project sponsor would require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

Hazards

9. In addition to local, state, and federal requirements for handling hazardous materials and soil and groundwater containing chemical contaminants, the project sponsor would enter into a voluntary remedial action agreement with the Department of Public Health pursuant to Health and Safety Code Section 101480 *et seq*. At a minimum, the project sponsor would undertake the following work and any additional requirements imposed by the Department of Public Health under the agreement.
   a. Phase I Environmental Site Assessment would be prepared for the project site. It would list current and past uses of the site, review environmental agency databases and records, report site reconnaissance observations, and summarize potential contamination issues, including any that warrant further investigation. The assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

      If warranted on the basis of the Phase I study, a Phase II Environmental Site Assessment would be prepared for the project site. It would involve the collection and analysis of soil and groundwater samples as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. The project sponsor would conduct a soil and groundwater investigation to assess the potential for possible fuel releases from former underground fuel storage tanks and ancillary piping and dispensers located on site. Soil or groundwater samples, or both, would be collected throughout the project site as directed by the site assessment consultant. Sampling would extend at least to depths proposed for excavation. This assessment would be completed by a Registered Environmental Assessor or similarly qualified individual prior to initiating any earth-moving activities at the project site.

      If the Phase I or Phase II assessments result in earth-moving activity that requires preparation of a Site Safety and Health Plan, in addition to measures that protect on-site workers, the plan would include measures to minimize public exposure to contaminated soils. Such measures would include dust control, appropriate site security, restriction of public access, and posting of warning signs, and would apply from the time of surface disruption through the completion of earthwork construction.

b. Prior to any demolition or excavation at the project site, surveys would be conducted to identify any potentially hazardous materials (other than asbestos and lead) in existing buildings or building materials. At a minimum, these surveys would identify any polychlorinated biphenyls, mercury, or other hazardous materials that would require removal and disposal before demolition. These surveys would be completed by a Registered Environmental Assessor or a similarly qualified individual.

c. All reports and plans prepared in accordance with this mitigation measure would be provided to the San Francisco Department of Public Health and any other agencies identified by the Department of Public Health. When all hazardous materials have been removed from existing buildings, and soil and groundwater analysis and other activities have been completed, as appropriate, the project sponsor would submit to the San Francisco Planning Department and the San Francisco Department of Public Health (and any other agencies identified by the Department of Public Health) a report stating that the mitigation measure has been implemented. The report would describe the steps taken to comply with the mitigation measure and include all verifying documentation. The report would be certified by a Registered Environmental Assessor or a similarly qualified individual who states that all necessary mitigation measures have been implemented.

Cultural Resources

10. Given the location and depth of excavation proposed, and the likelihood that archaeological resources may be encountered on the project site, the sponsor will retain the services of an archaeologist. The archaeologist shall conduct a pre-excavation testing program to better determine the probability of finding cultural and historical remains prior to the commencement of construction activities. The testing program would use a series of mechanical, exploratory borings or trenches or other testing methods determined by the archaeologist to be appropriate.

    If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer, with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he or she would consult with the Environmental Review Officer, and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

    These additional measures would be implemented by the project sponsor and could include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are findings of significance, would result in a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual on site as its representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources if they are encountered.

If evidence of cultural resources of potential significance were found during the monitoring program, the archaeologist would immediately notify the Environmental Review Officer, and the project sponsor would halt any activities that the archaeologist and the Environmental Review Officer jointly determine could damage such cultural resources.

After notifying the Environmental Review Officer, the archaeologist would prepare a written report to be submitted first and directly to the Environmental Review Officer, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measure should be implemented to minimize potential effects on archaeological resources. Based on this report, the Environmental Review Officer would recommend specific additional measures to be implemented by the project sponsor.

If it is determined on the basis of the archaeological testing or monitoring program or by accidental discovery that a significant archaeological resource is present and that the resource would be adversely affected by the proposed project, a data recovery program shall be implemented.

The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The project archaeologist, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The project archaeologist shall prepare a draft ADRP that shall be submitted to the ERO for comment and review. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. The ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes will address the applicable research questions.

Final Archaeological Resources Report. The project archaeologist shall prepare a final report evaluating the historical importance of the archaeological resource and describing the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s). Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Copies of the draft final archaeological resources report shall be sent to the ERO for review and approval. Copies of the final archaeological resources report shall be distributed by standard, as follows: California Archaeological Site Survey Northwest Information Center (1 copy) and the President of the Landmarks Preservation Advisory Board (1 copy). The Major Environmental Analysis division of the Department of City Planning shall receive three copies of the final archaeological resources report along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of an archaeological resource of high public interest or interpretive value, the ERO may require different content, format, and distribution of the final report than that presented above.

E. ALTERNATIVES

The EIR will discuss a variety of alternatives to the project that would reduce or eliminate any significant environmental effects. At the least, the EIR will including the following:

- No-Project Alternative
- Lesser Development Alternative 1: Car and Bus Parking Garage without a Through Street Connector (parking garage access would occur at Tenth Avenue and at Academy Drive)
- Lesser Development Alternative 2: Car-Only Parking Garage without a Through Street Connector (parking garage access would occur at Tenth Avenue and at Academy Drive)
- Lesser Development Alternative 3: Car-Only Parking Garage Including a Through-Street Connector (parking garage access would occur at Tenth Avenue and at Middle Drive East)

F. MANDATORY FINDINGS OF SIGNIFICANCE

		Yes	No	Discussed
*1.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history		X	
*2.	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		X	
*3.	Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	TO BE DETERMINED		
*4.	Would the project cause substantial adverse effects on human beings, either directly or indirectly?	TO BE DETERMINED		

* Derived from *State CEQA Guidelines* Appendix G; normally a significant effect.

G. ON THE BASIS OF THIS INITIAL STUDY

___ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

___ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers __, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_X_ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

May 18, 2002
Date

Paul Maltzer
Environmental Review Officer
for
Gerald G. Green
Director of Planning

Notes:

1. Donald Ballanti, Certified Consulting Meteorologist, *Wind Impact Evaluation of the Proposed New de Young Museum Project, San Francisco*, letter to EIP Associates, December 8, 1999.

2. Golden Gate Park Draft Master Plan Final Environmental Impact Report, Case No. 95.243E, State Clearinghouse No. 95093011, July 9, 1998, pp. 146-147.

3. The Golden Gate Park Draft Master Plan Final Environmental Impact Report, Case No. 95.243E, State Clearinghouse No. 95093011, July 9, 1998, includes a figure to identify sensitive biological resources or other biological resources of local interest. This figure, identified as Figure 28 on p. 152 of the Final EIR, does not identify such resources on, or in close proximity to, the project site.

4. California Department of Toxic Substances Control, *State of California Hazardous Waste and Substances Sites List*, April 1998, pp. 240-245.

5. Treadwell & Rollo, Inc., *Geotechnical Investigation, Golden Gate Park Garage, San Francisco, California*, May 28, 1999, p. 4.

6. California Code of Regulations, Title 8, Section 5192, "Hazardous Waste Operations and Emergency Response."

   National Institute for Occupational Safety and Health, U.S. Occupational Safety and Health Administration, U.S. Coast Guard, and U.S. Environmental Protection Agency, *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, U.S. Department of Health and Human Services Publication No. 85-115, October 1985.

7. Archeo-Tec, *Archival Cultural Resources Evaluation of the Proposed Golden Gate Park Music Concourse Garage Project, City and County of San Francisco, California*, March 2002

APPENDIX B. TRANSPORTATION

APPENDIX B: TRANSPORTATION

Level of Service Criteria for Signalized Intersections

Level of Service	Stopped Delay per Vehicle (sec)	Volume to Capacity Ratio
A	≤ 5.0	0.00 - 0.59
B	> 5.0 to ≤ 15.0	0.60 - 0.69
C	> 15.0 to ≤ 25.0	0.70 - 0.79
D	> 25.0 to ≤ 40.0	0.80 - 0.89
E	> 40.0 to ≤ 60.0	0.90 - 0.99
F	> 60.0	1.00 or greater

Source: Transportation Research Board, *Highway Capacity Manual,* Special Report No. 209, Washington D.C., 1994 and V and C Ratio from Transportation Research Circular #212, Transportation Research Board, Washington D.C., 1980.

LOS A - Delays of less than 5 seconds
This level of service occurs when progression is extremely favorable. Most vehicles arrive during the green phase and are not required to stop. Short cycle lengths may also contribute to low delay.

LOS B - Delays of greater than 5.0 seconds to 15.0 seconds or less
This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

LOS C - Delays of greater than 15.0 seconds to 25 seconds or less
These higher delays may result from fair progression, longer cycle lengths, or both. Drivers may occasionally be required to wait through more than one signal cycle (red phase). The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D - Delays of greater than 25.0 seconds to 40.0 seconds or less
At level of service D, congestion becomes more noticeable. Longer delays may result from a combination of unfavorable progression, long cycle lengths, or high volume to capacity (v and c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. The number of drivers having to wait through more than one red phase is noticeable.

LOS E - Delays of greater than 40.0 seconds to 60.0 seconds or less
This level is considered by many agencies to be the limit of acceptable delay. The high range of delays generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Drivers frequently are unable to clear the intersection on the first green phase.

LOS F - Delays in excess of 60.0 seconds per vehicle
This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios.

PLACE
POSTAGE
HERE

San Francisco Planning Department
1660 Mission Street, 5th floor
San Francisco, CA 94103

Attn: Joy Navarette
Golden Gate Park Concourse Authority Projects (2001.911E)

PLEASE CUT ALONG DOTTED LINE

RETURN REQUEST REQUIRED FOR FINAL ENVIRONMENTAL IMPACT REPORT

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

TO: Planning Department

Please send me a copy of the Final EIR.

Signed: ______________________________________

Print Your Name and Address Below